JPRS 84247

2 September 1983

Worldwide Report

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 285

FBIS FOREIGN BROADCAST INFORMATION SERVICE

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS REPORTS

Japan Report
Korean Affairs Report
Southeast Asia Report
Mongolia Report

Near East/South Asia Report
Sub-Saharan Africa Report
West Europe Report
West Europe Report: Science and Technology

Latin America Report

USSR

Political and Sociological Affairs
Problems of the Far East
Science and Technology Policy
Sociological Studies
Translations from KOMMUNIST
USA: Economics, Politics, Ideology
World Economy and International Relations
Agriculture
Construction and Related Industries
Consumer Goods and Domestic Trade
Economic Affairs
Energy
Human Resources
International Economic Relations
Transportation

Physics and Mathmetics
Space
Space Biology and Aerospace Medicine
Military Affairs
Chemistry
Cybernetics, Computers and Automation Technology
Earth Sciences
Electronics and Electrical Engineering
Engineering and Equipment
Machine Tools and Metal-Working Equipment
Life Sciences: Biomedical and Behavioral Sciences
Life Sciences: Effects of Nonionizing Electromagnetic Radiation
Materials Science and Metallurgy
Meteorology and Hydrology

EASTERN EUROPE

Political, Sociological and Military Affairs
Scientific Affairs

Economic and Industrial Affairs

CHINA

Political, Sociological and Military Affairs
Economic Affairs
Science and Technology

RED FLAG
Agriculture
Plant and Installation Data

WORLDWIDE

Telecommunications Policy, Research and Development
Nuclear Development and Proliferation

Epidemiology

FBIS DAILY REPORT

China
Soviet Union
South Asia
Asia and Pacific

Eastern Europe
Western Europe
Latin America
Middle East and Africa

To order, see inside front cover

JPRS 84247

2 September 1983

WORLDWIDE REPORT

TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT

No. 285

CONTENTS

WEST EUROPE

COMMUNICATIONS MINISTER SAYS SATELLITE 'LIKELY TO GO AHEAD'

Government's Position

Sydney THE AUSTRALIAN in English 30 Jun 83 p 3

[Article by Ellen Peterson]

[Text] DEVELOPMENT of Australia's controversial multi-million dollar domestic communications satellite is likely to go ahead on schedule, the Minister for Communications, Mr Duffy, said yesterday.

Mr Duffy said there were problems to be overcome but he believed these would be resolved satisfactorily.

His comments come amid increasing pressure from some federal backbench MPs to drop the project and a renewed campaign by the Australian Telecommunications Employees Association against it.

The backbenchers are concerned at the estimated $300 million to $650 million cost of the system.

Telecom workers also claim the satellite project will be uneconomical, and say it will cut Telecom's revenue.

Mr Duffy yesterday set out for the first time his position on the future of the project, which is under review by the Department of Finance.

He said the policy issues still to be resolved were the future involvement of Telecom with the satellite, the use of the four unallocated 30 watt transponders and the question of public or private ownership.

He said: "These issues are all under discussion. Inevitably this consideration and evaluation must take time.

"It is my belief, however, that we will resolve these issues satisfactorily in the near future and that the project will go ahead.

"A very important point is that the satellite will also help usher Australia into the high technology era.

"The nation can expect to benefit significantly in many ways from its involvement in the project."

Mr Duffy said the government-owned company charged with operating the satellite, AUSSAT Pty Ltd, and the Department of Communications had said the project was viable, would not require continuing federal government support and would return dividends to shareholders.

"However, as a new minister in a new government operating in difficult economic conditions, I believed that it would be more prudent to seek further advice from the Departments of Finance and the Treasury," he said.

Mr Duffy said the US space shuttle was due to launch the first Australian satellite in July 1985 and the second in October the same year. The first transmissions by satellite should begin in September 1985.

"I see no reason why this schedule cannot be maintained, providing the Government is satisfied on two major considerations," he said.

"The first is that the system will be viable economically and not be a continuing drain on Commonwealth funds.

"The second is that the satellite will offer genuine complementary services rather than seek to engage in destructive and damaging competition with Telecom's terrestrial network services."

Mr Duffy said he wanted to assure people living in remote areas that work on the satellite was on target.

But he would not attend a conference organised by the Northern Territory Minister for Primary Industry, Mr Tuxworth, to discuss the project. The conference will be held in Alice Springs on July 16.

Opposition

Mr Duffy has said the Government would be unlikely to go ahead with its decision in principle to sell 49 per cent of AUSSAT to private enterprise.

Before Mr Duffy's announcement, farmers yesterday joined the fight for the satellite.

The executive director of the National Farmers Federation, Mr John Whitelaw, said scrapping the satellite would further disadvantage farmers and other people living in isolated areas.

Aspects of Controversy

Sydney THE AUSTRALIAN in English 1 Jul 83 p 7

[Article by John Spiers]

[Text] CONTROVERSY over whether Australia needs its $350 million satellite system, Aussat – to be launched by an American space shuttle in two years – is a skirmish in a higher war to decide which union and which instrumentality will control it.

All major contracts for construction of the satellite and ground facilities have been let; cancelling at this stage would mean about $150 million in penalties.

One of the benefits of the system is that 300,000 people in remote communities will for the first time be able to receive at least one color television channel as well as high quality radio reception.

These people are currently limited to short wave radio reception so poor that many pick up radio Peking much better than Radio Australia.

On the two satellites which will initially be launched by space shuttle in two year's time, there are a total of 30 transponders which can direct signals to and from the ground.

Four of the higher-power 30-watt transponders are to be leased at a cost of $3 million a year each for direct broadasting of ABC TV and radio programs which any remote community or homestead can pick up with a $1000 dish antenna about the size of an average dining room table.

With the remaining 22 12 watt transponders up for lease at about $2 million a year, Aussat has a potential revenue of $68 million per year.

Its revenues are projected to exceed costs after about four years of operations and it will then be required to return a dividend to the taxpayer, even though 49 per cent of it should by then have been sold through the stock exchange to private enterprise.

Aussat is wholly owned by the Federal Government and board members are appointed by Federal Cabinet. So far the Government has pumped $49 million in share capital into Aussat and loans of $350 million have been raised on the commercial market in Australia and overseas.

Aussat proponents point out that the satellite can do many things which are impractical or uneconomic by terrestial means and it will operate basically on a user-pays principle.

As well as remote communities, there will be significant benefits for aviation and land and sea transport not achievable at several times the prices by terrestial means, as well as an extra dimension to communications when terrestial links may be disrupted by emergencies.

Organisations with national or multi-state operations, such as airline, banks, building societies, credit unions and other businesses will be able to purchase satellite transmission capability for data, facsimile, videotex, electronic funds transfer, teleconferencing and other services not currently provided.

These users can either connect to Aussat ground stations through normal Telecom lines or they can install their own ground stations and link direct to the satellite.

Direct broadcasting two-way voice and data links will be available – at a price – to offshore oil rigs, remote mining centres and other communities, the School of the Air and flying doctor.

If the Federal Government cares to licence a pay TV operation, where those with a special scrambler attached to their TVs can select and pay for programs not available to other viewers, Aussat can provide the technical capacity – again, at a price.

The price for the ABC may sound high but in Western Australia for instance, direct broadcasting will allow it to dispense with Telecom landlines by which programs produced in Perth are transmitted to relay stations in several parts of the State.

These stations will receive the programs from the satellite, and continue to broadcast them just as they do now. or anyone who cares to invest about $1000 can receive programs direct from the satellite.

It is quite likely that more of these dish antennae will be sold in the city than the bush.

In many overseas countries with well established domestic satellite systems, the parabolic antenna on the roof is quite a status symbols and can pick up all sorts of interesting things from the thicket of electronic haberdashery hanging over much of the northern hemisphere.

While it is unlikely that all Aussat's capacity will be leased from day one, the prices are not high by international standards and communications satellites are proving very much a growth industry.

Our neighbor, Indonesia, for instance, launched one in 1976 – just in time to help with the Government's re-election campaign.

Russia, Canada, US,, India, Mexico, Algeria, Brazil and Europe either have domestic satellites or are in the process of establishing them.

INTELSAT, which has been in operation since the mid sixties, now carries more than half of the world's international telecommunications traffic including all of the intercontinental television relays.

As well as the various national systems operating around the world, there are a considerable number of private enterprise satellites whose capabilities their owners sell to users by the minute, hour or year.

Controversy in the last few days about whether Australia really needs its $350 million satellite system is only a skirmish in a larger war to decide which union and which instrumentality will control it.

All major contracts for construction of the satellite and ground facilities have now been let and Aussat is using alot of fast-track methods for

launch by space shuttle in about two years.

Cancelling it at this stage would mean steep penalties.

The Australian Telecommunications Employees Association dubs Aussat "The Highest Flying Pork Barrel in Australia" and is campaigning hard to have the porject cancelled.

Claiming that the it is primarily intended to improve the profit of the media companies which will use it, while having limited benefit for country phone users and TV viewers, ATEA states that Telecom's terrestial network — serviced by its members and occasionally struck down when they take industrial action, reaches 99 per cent of Australians and meets all demands on it.

But many data processing and TV network executives are less enamored of the Telecom network.

Some major computer operators say they are falling up to five years behind overseas trends in efficient computer utilisation because Telecom will not provide the networks they require or provide realistic charging arrangements.

Telecom has made a series of submissions to the Federal Government calling for the satellite system to be placed under its control.

But from the early 70s Telecom made repeated studies of whether Australia should have a domestic satellite and always came to the conclusion that now was not the time, further study was needed, maybe in the future, and so on.

But there was a growing public groundwell of questioning about why most other countries were going ahead with domestic satellites while a vast continent with a scattered population like Australia was not taking advantage of new technology.

As a result of this the Federal Government set up the National Satellite Task Force, comprised of serving officers from Telecom, OTC, and the departments of communications, defence, transport, health and finance.

This recommended proceeding with a satellite as quicky as possible — with the sole dissenting voice being Telecom.

ATEA claims that a satellite system — particularly one operated by an organisation other than Telecom — would have the potential to remove business from Telecom and put Telecom jobs at risk.

This is in contrast to statements by the satellite task force that the net effects on telecommunications employment would be insignficant and if anything there would be a slight increase, although some redeployment-retraining might be required.

Just before the federal elections, the Professional Radio and Electronics Institute and the Federated Clerks Union served logs of claims on Aussat to have its staff covered by their unions.

The ATEA intervened in proceedings in the arbitration commission seeking to cover Aussat, even though by the ATEA charter, it can only cover workers in Telecom, Australia Post and the Department of Communications.

The ATEA campaign to discredit the satellite is aimed not so much at stopping it but having it absorbed into Telecom where the ATEA will automatically cover it.

This would mean that all Australia's cable, microwave and satellite communications links would be under the control of one union.

Ironically, Telecom is likely to be a major user of the system, by leasing capacity to serve subscribers in remote areas who are currently without reliable communications.

Union challenges to Aussat's viability must be weighed against the project having been crawled over by numerous government departments, and international bankers having given their approval in the form of loans.

It hardly rings true that a union whose member's jobs mainly revolve around high-technology communications equipment, should spend $20,000 in union funds proposing that a satellite project should be stopped and the money spent on job creation schemes for the unemployed.

For these reasons, it would be very suprising if the Government puts the satellite into the hands of an organisation which has been less than positive about it and is covered by a union apparently intent on its destruction.

Predicted Financial Drawbacks

Sydney THE AUSTRALIAN in English 1 Jul 83 p 2

[Article by Ellen Peterson]

[Text] THE planned domestic communications satellite, Aussat, would lose $459 million in its first seven years of operation, a Telecom union claimed yesterday.

The Australian Telecommunications Employees Association's federal secretary, Mr Bill Mansfield, said the total cost of the system would be about $660 million.

By 1992, after just seven years of operation, the satellite cost to the public sector could be in the order of $2000 million.

Mr Mansfield and the union's federal president, Mr Col Cooper, released a cost assessment of the satellite system to the Caucus Infrastructure Committee in Canberra yesterday.

The backbench committee also met with representatives of the government-owned company charged with operating the satellite, Aussat Pty Ltd, and potential user groups.

Mr Mansfield said the only way the system could make money was to compete with Telecom — probably forcing higher telephone charges and threatening the viability of Telecom.

"In addition, the Government must seriously question whether the community is

spending scarce public funds wisely when, at a time of high unemployment and economic restraint, we are committing hundreds of millions of dollars to a scheme to provide only small benefits to the community as a whole and which has negligible job generation effects," he said.

"The total public sector costs of the satellite project have not been the subject of adequate consideration in the past.

"Aussat has never given any composite statement of the satellite's costs against which the Australian public can judge whether the satellite represents fair value for money.

"The extension of the existing terrestrial telecommunications network could provide at much lower cost many of the services which are said to justify the launch of the satellite."

Mr Mansfield said if the satellite was allowed to compete with Telecom about $300 million of Telecom's revenue would be at risk. It would also threaten the viability of regional television stations.

The figure of $2000 million took into account potential losses by Telecom and the costs of the major users including the ABC, the Department of Aviation, and the Special Broadcasting Service.

However, the assistant general manager of Australian Associated Press, Mr David Jensen, told the committee the satellite would probably threaten no more than 3 per cent of Telecom's revenue base.

The first Australian satellite is due to be launched by the US space shuttle in July 1985 and the second in October 1985.

Mr Jensen said it was "incomprehensible that any competition presented by AUSSAT could justify an increase in Telecom's telephone charges to the public at any stage in the future."

"We feel the establishment of an alternative telecommunications system in specialised areas of telecommunications will encourage development and progress to the benefit of all users," he said.

The satellite project is now being examined by the Department of Finance, and the Government is expected to decide soon whether to continue with the project.

Options for Service to NT

Perth THE WEST AUSTRALIAN in English 30 Jun 83 News of the North pp 1, 2

[Excerpt]

THE Federal Government was still considering its options for the domestic satellite, the MHR for Kalgoorlie, Mr Graeme Campbell, said on Saturday.

He said there had been a lot of misinformation promulgated and the main considerations ultimately were those of cost and people's needs.

"Telecom has undertaken extensive surveys, principally in the Northern Territory," he said.

"It has found that among the non-Aboriginal population the overwhelming demand was for the telephone.

"In order of priority, people in remote areas said their first need was for a telephone, the second for a telephone that worked and the third a telephone that worked all the time.

"Television, radio, telex and School of the Air were much lower in priority.

"Telecom has been studying four methods of providing the required facilities — satellite, digital radio concentration systems, aerosat which is a tethered balloon and high-frequency radio.

"The latter two were quickly discarded on grounds of cost and effectiveness. The DRCS can provide city standard STD and ISD telephone services and at half the cost per installation compared with the satellite.

"There will be a few places in remote Australia where it will be cheaper to deliver the service via satellite. One transponder will be available on Aussat to accommodate this.

"It will provide 200 trunks to service about 2000 users, a ratio of about one to 10 which I am assured will give very good availability.

"There should be an understanding of what DRCS can do. It will provide first class telephone, telex and data transmission. At the expense of a telephone circuit it can provide voice broadcast, though this would not be of a high fidelity nature."

Mr Campbell said there would be no economic recovery in Australia unless there was a recovery in the mining and rural industries.

These industries themselves would not provide many new jobs. But, buoyancy in these industries would generate jobs in the cities where they were greatly needed.

Australia must grab any breathing space that the next recovery provided to develop industries in which it had a technological advantage.

"There is a place for high technology such as DRCS which was developed by the Telecom research and development branch," Mr Campbell said.

"It was handed over to Japan's NEC who in turn commercialised the concept and will no doubt use it to provide jobs for people in Japan.

"Ours is the history of opportunities lost."

The DRCS was not a universal panacea, he said. It would not provide TV or adequate radio services to the outback.

"The satellite will do this and quite clearly we need both," Mr Campbell said.

"The best cost-effective option is to use DRCS for telephone, telex and data and the satellite for TV and radio with back-up telephone facilities.

"The 33-watt transponders in Aussat will provide two television and two or three radio channels to the whole of Australia.

"Last week Indonesia placed in orbit its second generation satellite. An Australian system is long overdue. The 30-watt transponders mean that TV and radio will be available everywhere with a 1.5 metre dish and earth station at a cost of about $1000."

Mr Campbell said despite the fact that there was an Aussat education liaison committee, not one State had formulated a policy or had any firm plans on how it would use a satellite for education.

An interactive satellite station to provide voice only would cost $15,000 dropping to $10,000 with mass production.

This would initially provide what the high frequency radio system now provided at be-

CSO: 5500/7586

DISCUSSIONS OF CURRENT TELECOMMUNICATIONS SITUATION

Sydney THE AUSTRALIAN in English 21 Jun 83 p 24

[Article by Harry Douglas]

[Text] IN this and future columns I plan to discuss widely diversified high-technology topics: pay television (or rather the lack of it) in Australia and Australia's pioneer work in multi-project VLSI (very large scale integrated circuits).

One aspect of this application of a chip technology which concerns me is the viability of fabrication in Australia at a price acceptable to the Australian electronic manufacturing industry.

Gate array technology is one of several methods of custom integrated circuit manufacture being used at RMIT.

Chips designed with this method – believed to be more applicable to the Australian market – are being fabricated locally at a competitive cost.

In the case of Dr Craig Mudge's widely publicised multi-project chip system. I believe, while it is a fact it can be manufactured locally, it is not economically justifiable to do so and it may be some years before cost effectiveness is reached.

This leads to the query of whether the heavy Government expenditure on the CSIRO project could have been better used.

This comment is in a similar vein to my recent criticism of the huge manpower and dollar expenditure by the same Department of Science and Technology on the low-cost manufacturing industry system – in my Viewpoint of May 17 1983.

Time will tell whether the small manufacturer with 30 to 100 employees is the final winner and how many new jobs, if any, are created from the computerisation of these small manufacturing businesses.

Let's look now at the future of cable TV and over-the-air radiated TV – which can both be either on a free or pay basis. While I sympathise with the new Minister for Communications, Mr Duffy, in retreating into his office and refusing to see anyone for several weeks, I am concerned about the kind of advice he may have been receiving during this period.

The Government has many important decisions to face arising out of the development of new technology.

Mr Duffy prudently restricted access from all outside visitors, delegations and pressure groups while he got to grips with the complexities of his new portfolio.

But it is a critical period for the Australian broadcasting and telecommunications industries, and pressing decisions taken now will affect these industries for the next two decades at least.

For the most part they are policy decisions closely associated with the very rapid development of electronic technology and especially with its potential.

Technological change is occurring so fast that the outline for the future cannot safely be determined by conservative assessment of what has gone before, or where we stand now.

Some expert vision based upon experience and first-hand knowledge is essential.

This is why I am somewhat concerned at Mr Duffy's state of isolation during this decisive period.

If he is not going to consult the industry and sift for himself the good advice from the special pleading, where does he go for the expertise that will help him pull all the ends together and enable him to submit proposals to the Government that will lay the foundations for a new industry structure?

The disturbing assumption must be that he is being briefed mainly from official Government sources – which, for this purpose, are inadequate.

Mr Duffy's own Department of Communications (DOC) does not contain the expertise or the depth of experience required to resolve the problems associated with the domestic satellite and broadcasting – nor should it.

It is not the function of a government department to plan and determine in outline the future course of a whole commercial industry. It would be very dangerous for it to try.

But where does the Minister look for guidance?

We do not have any independent authority responsible for the whole of broadcasting, such as the FCC in America, or the CRTC in Canada.

The Australian Broadcasting Tribunal is a quasi-judicial body responsible mainly for licensing and regulation of only part of the Australian broadcasting system.

It does not, for example, have any jurisdiction over the ABC.

But with the ABC about to become more entrepreneurial, and possibly in full commercial competition through an ABC-RSTV involvement, against the existing commercial networks and the cinema chains, is it possible to keep the industry segregated?

The Broadcasting Tribunal in its report on cable and subscription TV was firmly of the view that if cable TV was introduced in Australia, a single Federal authority would need to be established with functions that would encompass both broadcasting and telecommunications.

I believe that subscription TV would raise conditions somewhat similar to cable. Taken in conjunction with the introduction of the satellite, extension of multilingual TV and ethnic radio, the extension of public TV and public radio, the introduction of supplementary commercial TV and radio licences, and the metropolitan TV networks' proposal to distribute programs nationally, this forms a package of problems that requires a long hard look now.

During his period of solitary contemplation the Minister may well have considered whether he might not – fairly urgently – have to update or overhaul some of the planning and regulatory procedures for the broadcasting industry, and indeed for his whole portfolio.

The domestic satellite is already causing disputes in the telecommunications industry.

We now have three separate monopoly authorities controlling Australian communications systems: OTC, Telecom, and Aussat.

There have been various calls for the merging of all – or at least the domestic services – within one authority.

But Telecom, in its present state of mind towards the domestic satellite, would hardly seem to be the authority most likely to develop this new technology to its full potential.

What is needed is more local research into the operating and technical potential of the satellite to suit Australian applications and conditions.

This would help demonstrate the advantages of the satellite system and its potential for an expanding industry with the creation of additional jobs.

A considerable amount of work is being done in the US, Japan and Europe as a result of American low-power broadcasting developments, and also in anticipation of direct broadcasting by satellite (DBS), which could have direct relevance to Australian use of Aussat.

Television Australia-Satellite Systems Ltd (TVA), the newly formed Australian company which is proposing to service the remote areas of Australia by satellite – and which was favorably mentioned by Mr Hawke in his rural policy speech at the election – has already commissioned some valuable research of this kind.

This is being carried out for TVA by Crooks Michell Peacock Stewart Pty Ltd (CMPS), the Sydney engineering consultants, who contacted the leading manufacturers of satellite earth stations and electronic equipment around the world and are now assessing the results.

The managing director of TVA, Mr John Hartley (who was formerly with the ABC and headed the team which devised and implemented the scheme for the ABC's use of Intelsat to provide ABC TV programs to the outback by satellite rather than through the DOC-recommended use of repeater stations) says: "We want to devise a broadcasting system for the future that will take us through the next decade.

"If we try to just polish up the existing processes they will be out of date before we can get them in."

Mr Hartley added: "We want to squeeze out of a very expensive first-generation satellite system every possible advantage the technology will permit.

"The original concept of Aussat was innovative, and we are now pressuring the engineers to advise us on what other services and facilities can be achieved by further technological ingenuity so that we can improve and maximise the uses of the satellite, particularly in services to the outback and at the same time reduce costs."

There is, for example, a big demand for specialised radio and TV services in remote areas, especially for education, information and aboriginal services.

TVA has briefed CMPS to provide information on robust and reliable low-cost earth stations for multiple use in small communities throughout the outback, but at the same time to consider the range of optional add-on extras for both radio and TV, if required.

TVA has also asked CMPS to examine digital video and audio systems and to see, for example, whether interactive voice channels could be provided from the home for use with the School of the Air so that the pupils could see the teachers on TV and speak back to them through the mini earth stations at their isolated homesteads.

With such a facility operating in each of the four "footprints" on Aussat, further potential development is envisaged for other special purposes.

It is this type of practical research that is needed in order to exploit the full potential of the satellite in the public interest, not only for broadcasting but for telecommunications generally.

If the Davidson Report recommending the stimulus of competition by private enterprises in the telecommunications industry is not to be pursued, the Government needs to find some alternative means of persuading Telecom out of its present resistance to change, and also to make Telecom realise that the introduction and expansion of a new technology in

what is in effect a new industry also creates many potential new jobs.

The immediate need is for Telecom not only to come to terms with the domestic satellite but to look closely at how the new technology can be exploited to Telecom's — and the public's — advantage.

Until this happens the Minister and the Government are going to have problems in even integrating the satellite and terrestrial systems.

All of which serves to argue further the need for some overall co-ordinating body — not the DOC — for telecommunications and broadcasting, or at least the provision of a better system than the one we have now.

CSO: 5500/7586

COMPUTER INDUSTRY WILL LAUNCH CAMPAIGN TO LOBBY GOVERNMENT

Sydney THE AUSTRALIAN in English 21 Jun 83 p 22

[Article by Ian Perkin]

[Text] **THE infant domestic computer manufacturing industry is to launch a major lobbying campaign in a bid to persuade the Federal Government to buy local equipment first.**

This follows anger within the industry over the minor content from Australian-owned computer companies in the recently announced $100 million Social Security Department computer contract.

The local industry argues that it could have supplied several hardware components of the DSS contract, particularly the terminals required by the department.

The largest share of the contract went to two overseas companies, Wang Computer and Amdahl Corp, when the contract was announced earlier this month.

Potential

Wang will supply the terminals and associated minicomputers worth $63 million and Amdahl will supply the mainframe equipment for the department.

As part of the agreement, Wang agreed to set up a plant in Canberra to manufacture the required terminals, but this is not regarded by the local industry as reason enough to overlook potential domestic suppliers.

The recently formed Australian Computer Equipment Manufacturers Association (ACEMA) met with senior Government department officials in Canberra last week to seek major changes in the Government's buying policies.

It now plans to meet with relevant ministers to press its claim that a greater share of future contracts should go to local companies.

Mr Graham Cole, a vice president and spokesman for ACEMA, said ACEMA had started an important dialogue with the Government with the aim of improving current policies and legislation.

"We had very good, very fruitful meetings with senior officials in the Departments of Administrative Services, Science and Technology and Industry and Commerce," Mr Cole said.

"And we also met with several senior officials in the Department of Social Security."

He said that ACEMA board members had met with Social Security Department representatives to discuss the $100 million computer tender.

"We believe that Social Security acted within Government guidelines," Mr Cole said. "However, it appears extraordinary that these guidelines could result in a real Australian content of less than 5 per cent."

Mr Cole said that ACEMA was the only representative body of Australia's computer manufacturers.

ACEMA was formed two months ago and its first major task was a comprehensive submission to the recent Industries Assistance Commission (IAC) inquiry into computers and related equipment.

Its active lobbying phase would continue, Mr Cole said.

"The Government has expressed a keen interest to hear our views on matters relating to high technology."

ACEMA would also become a promotional body, espousing the real value of the indigenous industry not only to politicians and bureaucrats but to the population at large.

"After all our industry is already a significant employer and it has substantial potential for even greater employment opportunities for Australians," Mr Cole said.

CSO: 5500/7586

FINANCIAL CRISIS AT RADIO AUSTRALIA AFFECTS SERVICES

Melbourne THE AGE in English 23 Jun 83 Green Guide p 7

[Article by Peter Wilmoth]

[Text] Radio Australia, which reaches an estimated 100 million people around the world, is unable to operate to capacity because it has no money to complete and bring into operation a vital transmitter in Darwin.

The lack of money means that the transmitter which was badly damaged by Cyclone Tracy in 1974, is unlikely to be back in operation before late next year or early 1985 and that other projects, too, have had to be postponed.

The transmitter, vital to keeping Radio Australia's signal loud and clear, was to be reconstructed and operating fully by January next year, but a 7 per cent cut in the ABC's budget has meant that money for the running of the transmitter station will not be available until July next year.

The delay on the $25 million station also halts an agreement between the Australian and Chinese governments for Australia to provide English language lesson programs. Pamphlets to go with the programs already are in China waiting to be distributed.

One Radio Australia source said: "Can you imagine how the Chinese section feels?"

Radio Australia's controller, Mr Peter Barnett, a former ABC Washington bureau chief, said this week: "Radio Australia is aware that costs have to be cut in the current financial climate; however it is true that news of the delay in transmissions from Drawin was a disappointment to those at RA, because the wait for the rehabilitation at Darwin has taken so long."

Sources close to Radio Australia say that it is bogged down with bureaucracy and finds it difficult to plan projects because of friction with government agencies.

One source said: "Radio Australia is forced to grovel for everything. Everything has to go through so many channels before it is cleared.

It's ironic that RA took possession of a beautiful new studio complex which other international broadcasters would be proud of and then can't use it properly.

"Other broadcasters have problems, too, but they're not given a transmitter and then have it taken away, or deferred. They're given it, allowed to build it and then told 'sorry, you can't play with your new toy'.

Radio Australia broadcasts in nine languages and is never off the air. Since its beginnings in December 1939 when it was Australia Calling, it has become as important a communicator with the rest of the world as any other medium.

In November last year, it moved its headquarters from what was described as a "dilapidated shed" in Lonsdale Street to a $7.5 million studio complex in East Burwood. The complex is regarded as one of the best in the southern hemisphere.

The source said international broadcasting was extremely competitive and that Radio Australia's hardware had to be the best if it were to compete with the BBC, the Voice of America, Radio Moscow or Radio Peking.

"If Australia wants political clout in ASEAN countries, it has to be up there competing with the others," the source said.

The Radio Australia source described its budget as "chicken feed" compared with what was available to Australia's overseas representation such as High Commissions and consulates.

CSO: 5500/7587

BRIEFS

AUSTPAC SYSTEMS--Support for the attachment of IBM communications products to Telecom's Austpac packet switched network has been formally announced by IBM Australia. The managing director of IBM Australia, Mr. Brian Finn, said the company's support of Austpac reflected IBM's commitment to providing the widest range of communications capabilities for user application requirements. "This move will help IBM customers to make use of the Telecom offerings most suited to their needs," he said. The announcement followed extensive testing in Australia of the previously announced IBM X.25 communications support for products such as visual display units, communicating personal computers and Displaywriters, and finance industry terminals, to ensure effective operation of IBM systems in the Austpac environment. Support for a variety of IBM systems was provided by two key products--Network Control Program Packet Switching Interface for large host systems attachment, and Network Interface Adapter for smaller host systems such as the 4331, System/38, System/34, Series/1, 8100 and the new System/36. [Text] [Sydney THE AUSTRALIAN in English 28 Jun 83 p 21]

CSO: 5500/7587

BRIEFS

RADIO ANTENNA TO BE CONSTRUCTED--A medium-size [khanat kang] radio transmission station is being constructed in Laos with assistance of Soviet experts. An IZVESTIYA correspondent in Vientiane reported that Lao technicians are making preparations to erect the 280-meter antenna, which will become the tallest in all of Southeast Asia. The construction of this radio station will be completed in 1984. This station will enable the people of all regions of Laos to directly receive radio broadcast programs from Vientiane capital. [Text] [BK290700 Moscow in Lao to Laos 1030 GMT 28 Jul 83]

CSO: 5500/4364

COMMENTATOR ON IMPROVING RURAL POSTAL TELECOMMUNICATIONS SERVICES

HK080250 Beijing RENMIN RIBAO in Chinese 5 Aug 83 p 2

[Commentator's article: "It is Extremely Urgent to Develop Rural Postal and Telecommunications Services"]

[Text] As a result of the development of the rural economy and the improvement of the people's well-being, new and still higher demands have been imposed on rural postal and telecommunications services. Developing the rural postal and telecommunications services is a major event and an extremely urgent task in invigorating the rural economy.

In the past 33 years since the founding of the PRC, we have fundamentally set up a rural postal network and a rural telephone network, which are linked with the state's main communications networks and take the county government seats as their centers. The rural networks have played a major role in developing rural production, building new villages, and serving the peasants. However, because of the poor foundation of the postal and telecommunications services in the past, and because of the damages done during the decade of internal disorder, many problems have cropped up in rural communications, such as backward equipment, poor management, serious inadequacy in communications capability, and inferior service quality. This hinders the dissemination of information and is immensely disadvantageous to the economic and cultural development in rural areas.

The importance of postal and telecommunications services has become more and more obvious as a result of the economic development in rural areas in recent years. The agricultural departments and various other departments dealing with agriculture want to promptly grasp economic information. A number of agricultural bases which chiefly produce commodity grain have been established. Many of the state's industrial and mining enterprises and key construction units are located in the countryside. All this requires the cooperation and support of the rural postal and telecommunications services. A tremendous development is also needed in postal and telecommunications services to promote socialist spiritual civilization and to spread agroscience and technology in the countryside. An investigation in Hunan Province shows that more than 1 million peasant households subscribe to KEJI BAO [SCIENCE AND TECHNOLOGY JOURNAL]. We often say that both policy and science are needed in developing the economy. Postal and telecommunications services are indispensable to the publicity of policies and the spread of scientific knowledge.

Our country has vast territories. Economic development is uneven in various parts of the country. To quicken development of the rural postal and telecommunications services, we must emancipate our minds, adopt correct principles, policies and measures, bring the initiative from all sources into play, and continuously increase our communication capability. In recent years, the quality of communications service has deteriorated in some rural areas, and cases of graft and embezzlement, loss of telegrams and letters, violation of rules and regulations, and wrong delivery of letters have occurred from time to time. This impairs the interests of the masses and damages and reputation of the postal and telecommunications units. These problems should be solved as quickly as possible in the future. Of course, the efforts of the rural postal and telecommunications departments alone are far from enough to develop the rural postal and telecommunications services. Coordinated efforts of the masses are needed. In particular, the local governments must strengthen leadership over these services and give support and help in raising runds, carrying out capital construction and technical innovation, and protecting the communication lines, so that the rural postal and telecommunications services may meet with requirements of the modernization program as soon as possible.

CSO: 5500/4185

ZHANG JINGFU ATTENDS TELECOMMUNICATIONS LECTURE

OW181130 Beijing XINHUA in English 1100 GMT 18 Aug 83

[Text] Beijing, 18 August (XINHUA)--China's telecommunications industry should center on development and application of satellite and fiber optics communications technology and the latest radio and television sending and receiving equipment, Guo Wenzhao, member of the Chinese National Committee for World Communications Year said today.

Speaking at a public lecture for the 1983 "World Communications Year" this morning, he said that China's 200 telecommunications equipment factories and research institutes, with a staff of 200,000 can produce equipment for earth satellite stations, microwave communications, carrier channel facilities, teletypewriters and phototelegraphs. They will take World Communications Year as their inspiration to turn out more high quality, cheaper electronic products for the national economy.

Present at the public lecture were Zhang Jingfu, state councillor, and more than 1,200 leading officials, scientists, experts, engineers, technicians and representatives from communications departments.

Wen Minsheng, vice-chairman of the National Committee, said that 1983 was designated World Communications Year by the United Nations at its 36th conference in 1981. It aims at popularizing the importance of communications in each country's economic and social development and spreading information to bring about an expansion in national communications infrastructures.

He said that China has used mass media to spread communications knowledge and held academic seminars on telecommunications. It has also organized young people to attend communications activities, Wen Minsheng added.

Reviewing the development of China's radio and television, Lu Keqin, advisor to the Ministry of Radio and Television, said that China has 118 broadcasting stations with 176 programs and 47 television stations with 54 programs. Radio Beijing's foreign service broadcasts in 38 foreign languages. The ministry will hasten to adopt satellite and microwave transmission and other up-to-date scientific and technological achievements to modernize receiving, news gathering, and editing.

The lecture was sponsored by three ministries and two concerned institutes.

CSO: 5500/4184

TELECOMMUNICATIONS MINISTER VIEWS SATELLITE'S CAPABILITY, COST

Rio de Janeiro MANCHETE in Portuguese 6 Aug 83 pp 90-91

[Text] Communications Minister Haroldo de Mattos announced the launching of the first Brazilian satellite for February 1985. The second is going into space in August of the same year and will permit the simultaneous transmission of 24 television programs or 500 telephone calls. In this interview, the minister spoke of the advantages and costs and how Brazil succeeded in "dribbling" the economic crisis to have a domestic satellite and still obtain benefits in other areas, such as imports, credits and the exchange of technology.

According to the communications minister, communications via satellite characterize a new era in the history of telecommunications. "The quality of transmission and its coverage is really revolutionary, considering deep-rooted concepts. The satellite is the appropriate solution for countries of large territorial size such as Brazil, India and China." The minister believes that for those countries, of enormous area and populations distributed over areas that are sometimes difficult of access, distant and dispersed, putting a satellite in orbit would resolve all the difficulties. He observed also that some countries take advantage of that solution. And he gave an example: "Canada has been exploring communications for 10 or 20 years to place a satellite over its territory. The more so because in the northern part of that country, people live spread out over an inhospitable area. Only in that way can Canada bring more school education, medical assistance, etc. to those areas. Thus, for a country that has a large territorial area and groups dispersed over regions difficult of access, with adverse climatic conditions, very rough topography and other problems, the domestic satellite is the appropriate solution."

The minister enthusiastically enumerated the advantages of communication by satellite: "Public telecommunications can reach any point in the country, no matter how distant it may be. Satellite communications, therefore, covers all of the national area, it extends radiobroadcasting coverage--not only of sound but also of images--to every point of the national territory, which is undeniably a great advantage. It permits tele-education to be generalized, even medicine, the press, telemetry, and the establishment of large radio and television networks, besides facilitating all administration."

Rural Telephone Service Is Automatically Solved

According to Haroldo de Mattos, rural telephone service is automatically solved. He explained that "through conventional means, rural telephone service is very expensive." He explained that if we put a satellite 36,000 kilometers above the earth--which will be the case of Brazil--its position is geostationary and will cover the whole country. So that the problem narrows down to setting up an antenna, because their prices are getting lower and lower. This means then that agriculture has a powerful ally in communications via satellite. For project sites that are built, for a mining industry, for the construction of a dam, the satellite covers the whole territory; it maps emergency situations and public disasters. The communications signal reaches all points of the country. All that needs to be done is to set up an antenna capable of receiving it and delivering it to the user. It will be everywhere.

Minister Haroldo de Mattos related a short history: "Since 1974, Brazil has been using the space segment of Intelsat, even though for domestic communications, we lease channels on that international satellite of which agreement we are signatory members, with a significant participation."

The minister emphasized the political question of the occupation of the orbit by a Brazilian domestic satellite at this time. He explained that now is the opportune time for Brazil to choose the position that lends itself best to coverage of the national territory. "We will have two satellites--you always put up two--one in operation and the other in reserve. One of them operates at 65 degrees West longitude and the other 70 degrees West longitude."

Once again he pointed out: "If by chance those positions were to be occupied tomorrow, we would have to carry our satellite into another position, which would increase its cost because it would have to be more powerful to cover the national territory with the same quality. That is another reason that counsels the installation of the domestic satellite."

He said also that "because we have been operating with satellites in international and domestic communications for many years, today we have a team of highly trained specialists not only to operate the stations but to properly specify the satellites that are of interest to us. That team is being utilized fully to bring that project to a conclusion."

With the Domestic Satellite, the Leasing Cost of the International One Will Drop

Haroldo de Mattos explained that "through the ground stations that we are going to use, all of the prototypes of the Brazilian Telecommunications Corporation (TELEBRAS) were developed in our research center in Campinas, Sao Paulo [as published]. And they will be manufactured by Brazilian industries, which will considerably reduce the price of the space communications system."

The system is economically viable because our expenses with the leasing of the international satellite are rising at a high rate. If we use our own satellite, that leasing cost will drop.

He continued: "Taking all those arguments into consideration, President Figueiredo approved the domestic satellite project in February 1981. It had already been considered at the time of Geisel's administration. International bidding was even opened up. After the bids were presented, the government believed that it was not the opportune time to initiate the project and postponed it to the following administration."

He related that, based on the president's support, the Communications Ministry negotiated with various suppliers. "I say 'we negotiated' because we had certain demands that we would not forgo. We believed that those who planned to undertake to supply the space segment to Brazil--because the ground stations will be built in the country--should guarantee the transfer of technology, especially to the National Space Research Institute and the Space Activities Institute. They would also be obliged to provide us financing conditions and guarantee a counterpart of imports; that is, the supplying company should purchase merchandise or goods of the same value as the amount we would spend on the purchase, on what the project would require of Brazilian expenditure in dollars."

The minister announced the other requirements:

"Besides that, we would insist that complementary credits be offered to be applied in other areas of activity within the country. Of course we take into account the time frames and the experience of the supplier. Meetings were held with several of the biggest suppliers, the most traditional ones. At the end, we received bids from two groups: one Canadian-American, Sparr-Hughes, and the other a French-American group, Aerospatiale-Ford Aerospace and Thomson."

Haroldo de Mattos observed that an interministerial committee was set up under the Communications Ministry to analyze the bids, because there were various conditions involved. Besides the counterpart of imports by the suppliers, it was necessary to have people who understood problems such as the transfer of technology, with a view to our Space Research Center. In short, a high-level committee that analyzed those bids. The Communications Ministry specifically analyzed the technical conditions, the project from a technical point of view. We finally decided in favor of the Canadian-American Consortium.

The Winner Was The Canadian-American Consortium

He admitted that there was a bid from NASA and another French group. And he revealed that: "According to the timetable, we should have our first satellite launched in February 1985. And the second satellite will be launched in August of the same year. They have a useful life of between 9 and 10 years and a capacity of 24 radio frequency channels, each channel having 1,000 voice channels, permitting 500 simultaneous telephone calls or the transmission of 24 television programs.

He added that the launching mass is 1,140 kilos and the satellite in orbit will weigh 670 kilos as of the time it occupies its orbital position.

How are the costs?

"The contracts were signed by the Brazilian Telecommunications Company (EMBRATEL), the company responsible for the project and, in the future, for the operation of the satellite. It is actually the contracting party. That contract is for the two satellites plus the ground equipment, the telemetry, tracking and control stations to actually maintain control of the satellite. The satellite needs to be checked 24 hours a day so that it will not leave its position, so that its antenna will shift. In short, it needs to be rigidly controlled. There is an apparatus in the station that does that during the entire day. And all of that is included in the price of the space segment, also the ground control station. The cost is $122 million plus $11 million in orbit incentives. That means, a part of those $11 million will be paid for each year of life. That is, the years envisaged in the bid. The financing comes from three financial institutions in Canada, parallel obligations, with complementary financing of $150 million to be applied to activities other than the satellite, the counterpart export program in the amount of $200 million in up to 4 years, and the program for the transfer of technology to the TELEBRAS Research Center in Campinas and the National Space Research Institute." That is the satellite contract, properly speaking.

"The contract that EMBRATEL signed with the satellite launching company, which is building the rocket to put the satellite in orbit, calls for two launching vehicles and associated services (February and August 1985) at a cost of $58 million: $40 million financed by a French financial institution; parallel obligations, complementary financing, $46 million which was credit offered to Brazil to be applied in areas other than the satellite, and the program for the transfer of technology to the National Space Research Institute and the Space Activities Institute. That is our satellite project."

8711
CSO: 5500/2092

REVIEW OF CURRENT TV SITUATION, FUTURE PLANS

Roseau THE NEW CHRONICLE in English 25 Jun 83 pp 6-7

[Text] In the beginning there was Raffoul, then came Video One, now, here comes Marpin Cable Television. Following the television entertainment void created by the Hurricanes, Dominicans are now enjoying more television viewing than at any other time. Two small stations and one Cable TV Company are now offering viewers approximately 130 hours of TV viewing per week compared with about 35 hours before August 1979. And more is in store.

"This is just the beginning", says Ronald B.M. Abraham, Managing Director of Marpin TV, the company which will this week bring American television programmes via satellite to Dominican homes at a cost of $30 per month plus $150 installation fee. Initially, Marpin is offering TV on 4 programme channels from 4 p.m. - 12 midnight on weekdays and 4 p.m. - 6 a.m. on weekends, but the company hopes to increase the channels to eight with a 24-hour service by year end. "By December we hope to connect 2000 sets from Belfast to Pointe Michel," said the Director last week. "Within a week of receiving the cables, which we expect this week, we will install all registered owners in Roseau."

Antoine Raffoul may have started Dominica's television boom. But the quality of films shown by the cinemas and their conditions may have provided the catalyst for the influx of first video sets and now mini-TV stations. When Raffoul began providing the free service in November of 1980 on Channel 3, to viewers in Roseau and Goodwill it was as welcome as daybreak after a night of nightmares. "People used to pray for us", says Businessman Antoine Raffoul. At the moment he is thinking of extending what he considers to be an "expensive hobby". He will improve telecasting on channel 5, to span Pointe Michel and Salisbury, if viewers will subscribe a minimum of $30.00 to raise $50,000 to buy equipment. The channel 3 equipment, he now uses, will then be installed, either at Portsmouth or Marigot.

In addition, there is the possibility that relay of television from CBC in Barbados will resume. But according to a Ministry of Communications and Works official this is in the hands of the Antilles TV Company operating out of Montserrat. The Company is looking at proposals to reinstall equipment for the relay station at Scottshead. The official said the preamplifier and mast have already arrived. The proposed operation date was set back when, 6 months ago, persons "canibalised" equipment which was salvaged from Hurricane DAVID.

Because of the recent increase of imported television into Dominica, many people are concerned about the effect it may have on the minds of children and on life styles. This fear is exaggerated, according to Dr. Everold Hosein, a former Director of UWI Institute of Mass Communication. "We have been creolised long before the presence of the mass media", he writes. "Unless we build a great wall around the Caribbean, the process

will continue". To balance off the effect of this feared cultural imperialism of North America and Europe it has been suggested that programming should reflect a mixture of "canned stuff" and local material. A spokesman for the Video One group says they intend to improve on the quality and quantity of local programmes in the future. According to Marpin's Director the company is to devote one channel for local programmes. Antoine Raffoul of Raffoul TV says he has shown tapes of National Celebrations, Carnival and recently financed a 15 minute local feature on Dental Hygiene. He'd use all local material he could lay his hands on, he added. And if CBC relay is resumed its coverage of regional news and features will improve the foreign and national television material.

CSO: 5500/7588

PLANS FOR RADIO NETWORK EXPANSION NOTED

Dhaka THE BANGLADESH TIMES in English 28 Jun 83 pp 1, 8

[Text] Syed Najmuddin Hashum, Minister for Information on Monday visited the under construction National Broadcasting House complex at Sher-e-Bangla Nagar to see for himself the progress of work.

Built on an area of 7.8 acres of land, the estimated cost of the project is Taka 24.27 crore including a Japanese grant of Taka 14.44 crore.

Initiated in 1976, the project is expected to be completed during the current year. So far 80 per cent of physical work has been completed by 42 technical people including 24 Japanese men.

The new complex has ten studios like continuity studios and medium studios for music and drama production, medium studios for music and speech production, and an audience participation studio with 184 seats.

The Information Minister was taken round the complex by the Director General of Radio Bangladesh Mr Enamul Huq.

Speaking on the occasion Syed Najmuddin Hashini appreciated the combined efforts of Bangladesh and Japanese technicians and hoped that the money spent on the project from the national exchequer would be properly utilised for the benefit of the masses.

He pointed out that the Government of General Ershad was determined to reach all facilities now available in the capital and other urban centres to the rural areas. The thrust of the Government was to cover all areas particularly the rural areas by the Radio network, he said.

Dwelling on the development projects of Radio Bangladesh undertaken by the Government, the Minister pointed out that work was continuing in full swing to complete the Taka 28.85 crore high frequency transmitters and aerial system project in Kabirpur.

In this connection he praised the Radio Bangladesh engineers who have completed the aerials of the project, and observed that this spoke of the level of technological advancement. The project is expected to be commissioned by October next, he said.

Syed Najmuddin Hashim said that construction of the Taka 3.94 crore studio and administrative block of the Broadcasting House were nearing completion.

He disclosed that equipment for the 20 kilowatt (MW) transmitter project in Rangpur was expected to be shipped to the country by the current month.

Besides, three radio stations--each having a ten kilowatt (MW) transmitter--would be installed at Comilla, Thakurgaon and Rangamati. Site for these stations have been acquired, and the project is estimated to cost Taka 9.6 crore, he said.

In addition to these, site had been acquired also for the construction of a 100 KW medium wave transmitter at Bogra at a cost of Taka 4.5 crore including Taka 2.25 crore in foreign exchange. The major equipment for the project were ordered during 1981-82, and the architect was now preparing the layout plan, Syed Najmuddin Hashim added.

CSO: 5500/7167

BRIEFS

DIRECT DIALING BEGINS IN DECEMBER--International subscribers dialling system (I.S.D) is expected to go into operation during the forthcoming conference of OIC to be held in Dhaka on December this year, report, ENA. As a part of the first phase, international subscribers system will cover the Islamic countries. Stesp have been taken to expedite the process. Chairman of the T and T Board, A. H. M. Nurul Huda, told ENA yesterday that initially a separate exchange at Mogbazar will be in operation to work for ISD programme. Separate tarrifs are being worked out and those who will be having ISD facilities will re communicated in due course. Mr. Huda said that steps have been taken to improve telephone facilities including setting up a micro-wave channel between Dhaka and Chittagong. Replacement by a new micro-wave system between Dhaka and Khulna is also under consideration. Answering a question he said 15,000 new telephones are expected to be installed during the current year in addition to existing strength of 1,50,000 telephones. He said that the Board is anxious to expand facilities for the subscribers and improve the telephone system. He pointed out two satellite are now operation and have contributed to added improvement in quality of service. The ground satellite stations at Talibabad has provided excellent transmission and reception facilities through satellite establishing connections all over the world. [Text] [Dhaka THE NEW NATION in English 4 Jul 83 pp 1, 82]

EQUIPMENT FROM JAPAN--An agreement for supply of interface equipment for inter-working between local telephone exchanges and Nation Wide Dialling Trunk (NWD) exchanges in Bangladesh was signed on Wednesday between Bangladesh T and T Board and M. S. Sumitomo Corporation of Japan, reports BSS. According to a Tand TBoard Press release in Dhaka on Thursday interface equipment costing about Taka 4 crores will be financed under Japanese debt relief grant. By this agreement 16 EMD automatic telephone exchanges will be provided with these interface equipment and as such the subscribers of Jessore Rangpur Sylhet Comilla Cox's Bazar Pabna Rajshahi Kushtia Dinaj pur Barisal Faridpur Jamalpur Mymensingh Majjdee Narayan goni and Patuakhali exchanges will be able to dial among them selves directly for inter district calls T and T Board has taken up a programme for inclusion of other auto exchanges in the network in near future. For exchanges at Dhaka Chittagong Khulna and Bogra the equipment will not be required as these exchanges have already been provided with similar facilities. [Text] [Dhaka THE BANGLADESH OBSERVER in English 8 Jul 83 p 8]

CSO: 5500/7169

EXPERT DISCUSSES COMMUNICATIONS PLANS

New Delhi PATRIOT in English 14 Jul 83 p 10

[Text]

Our Staff Reporter

Satellite communication systems was the answer to India's communication requirements, and this would be achieved in two or three years at reasonable expenditure, said Planning Commission chief consultant Prof Yashpal in the Capital on Wednesday.

Delivering a lecture on "Communication elements and communication systems; a question of values and objectives", organised by the Delhi Science Forum, Prof Yashpal felt the existing conventional modes of communication needed too much infrastructure and at excessive costs.

Giving an example of the costs, Prof Yashpal said the sixth Plan target for installed telephones was four million, set as an estimated cost of Rs 1500 crore. Each telephone, would therefore, cost about Rs 12,000 to instal, after laying wires and counting production costs, wage overheads and other expenses.

CHEAPER

The telephones when installed would cater to metropolitan cities and some rural areas partially, Prof Yashpal pointed out, while the satellite communication network could cut down costs to about a fourth of Rs 1500 crore, and provide about 40,000 stations to beam and receive messages through 6,000 terminal stations all over the country.

Prof Yashpal who is a former director of Space Applications Centre Ahmedabad, said the 6,000 terminal stations could handle 3000 telegrams with the help of the existing band width.

Communications elements and system requirements in India are different from what we generally import, Prof Yashpal said. When we borrow technology, we generally end up borrowing total systems, a measure that should not be encouraged, he stressed.

The technologies that reached India were pre-programmed and also versatile if explained properly, he pointed out. But not much was happening about understanding the technologies, he regretted.

In India the cinorgetic and video systems could be used to an advantage for the brightness of atmosphere, amongst the people where "things happen—life in the raw" moves ahead, Prof Yashpal averred.

Satellites like mirrors in the sky—should have two-way open communication system—transmission and receipt—in order to open up new vistas for the people and the country.

CSO: 5500/7174

SATELLITE CENTER DIRECTOR ON PLANNED INSAT LAUNCHINGS

New Delhi PATRIOT in English 15 Jul 83 p 5

[Text]

BANGALORE, July 14 (UNI) —With the successful completion of most of the pre-launch tests, the Indian National Satellite INSAT-1B is well set for launch from Cape Kennedy in the United States next month.

Prof U R Rao, director of the satellite centre of the Indian Space Research Organisation, told UNI that the satellite had already been moved to the launching pad.

Prof Rao, who returned from the US recently, said he had attended a review of the final preparations to make sure everything was all right. There would be further reviews after the satellite was placed in the space shuttle Challenger.

He said the National Aeronautics and Space Administration would have to refurbish the shuttle after its recently-completed seventh flight to make it ready for its eighth flight.

INSAT-1B is the second satellite in the INSAT-1 system. INSAT-1A, launched from Cape Kennedy in April last year, was abandoned in September following sudden depletion of the onboard fuel.

All corrective measures have been taken to ensure that INSAT-1B does not face the problems of INSAT-1A. Both the satellites are three-axis stabilised with a precision attitude control system. While INSAT-1A was located at 74 degrees east, INSAT-1B will be located in a geo-stationary orbit at 94 degrees east.

India has now decided to go in for INSAT-1C as an in-orbit spare for INSAT-1B. INSAT-1C, like its predecessors, will be manufactured to Indian design by the Ford Aerospace and Communications Corporation of California.

The two satellites will be used in telecommunications, television and radio net working and weather monitoring.

CSO: 5500/7175

JAPANESE EXPERTISE FOR RURAL TELEPHONE NETWORK

Madras THE HINDU in English 18 Jul 83 p 9

[Text] New Delhi, 17 Jul--Indian Telephone Industries Ltd. (ITI), will be collaborating with Kokusai Electric Company Ltd., Japan, for manufacture of multi access concentrator-type radio system, which would vastly improve rural communications in India, under an agreement signed by Mr K. Swaminathan, Managing Director, ITI, and Mr Kataoka, Executive Managing Director of the Japanese firm.

Rural areas, as far as phone requirements are concerned, are beset with problems like remoteness, inaccessibility, low density distribution of subscribers and low volume of traffic, making the conventional method of providing telephone connections by cables or overhead lines costly and, sometimes, technically nonfeasible. The multi-access radio system will overcome these by providing "radio" access to the subscribers and concentrating the traffic generated.

The system provides for a maximum of eight radio channels which could be used in common by as many as 72 "remote" public telephones. Each remote unit is equipped with a radio trans-receiver and its own power supply.

With this agreement, the ITI estimates to build up a annual capacity for systems to cater to as many as 600 long distance public telephones of this type.

Indigenisation scope: The Department of Electronics (DOE) believes that there is still enough scope for stepping up the indigenous content in the technology for the building of the second factory in Bangalore by the Indian Telephone Industries to manufacture electronic exchange equipment with an annual capacity of five lakh lines. It does not think that the Government's decision to seek technology for this purpose from CIT-Alcatel, the same French company, chosen for collaboration for the first factory to be set up at Gonda, Uttar Pradesh, should discourage efforts at indigenisation.

The DOE has initiated inter-departmental discussions on research and development to increase the indigenous content of technology to be transferred by CIT-Alcatel. While the DOE had proposed that the indigenous content in the technology chosen for the second factory should be higher, it did not rule out technology imports altogether.

Importing chips: The DOE knew that there could be no escape from having to import chips and it believe that it should be possible to utilise the CIT-Alcatel knowhow with substantial modifications, based on indigenous effort. It is explained that while importing very large-scale integrated circuits (IVSI) which could carry out a particular function, it should be possible for India to restrict such imports to one-time purchases and make use of the VLSI again and again. The DOE is examining the scope for making chips in Chandigarh at Semi-Conductors Ltd. (SCL).

Replacing ONGC computer. The DOE is also in full agreement with the Oil and Natural Gas Commission (ONGC) on the need to replace the 371-45 IBM computer at Dehra Dun for processing and interpretation of seismic data by a very large computer. A global tender has been floated and the responses from some foreign companies are being evaluated.

As for the Raklways' programme for the computerisation of freight operations, the proposal is to go for a two-tier system, the first being a central and the second, a zonal system. The Railways required some consultancy services in this regard and both the DOE and the Railways are having discussions with the Canadian and British Railways on the choice of consultants.

CSO: 5500/7176

COMMONWEALTH TELECOM MEETING OPENS IN DELHI

Bombay THE TIMES OF INDIA in English 19 Jul 83 p 5

[Text] New Delhi, 18 Jul (PTI)--The Union minister of state for communications, Mr V. N. Gadgil today inaugurated the 23rd meeting of the Commonwealth Telecommunications Council (CTC) in Srinagar.

The Commonwealth Telecommunications Council, which is a body set up to facilitate consultation on all external telecommunication matters between Commonwealth governments and also to administer financial and other collaborative arrangements between Commonwealth countries for their external telecommunication services, is holding its meeting at Srinagar for five days from today.

Mr Gadgil recalled the pioneering role the Commonwealth partnership had played in the fulfillment of the objectives of global communications. He welcomed new collaborative programme which are being launched during this year, to facilitate consultation and information exchange.

Mr H. G. Barber of Jamaica, who is the current chairman of CTC, is presiding over the conference.

Mutual Help

The Commonwealth Telecommunications Council is the executive organ of the Commonwealth Telecommunications Organisation (CTO). The objective of the organisation is to promote development of the Commonwealth external telecommunications network and provide mutual assistance in the planning and operation of the network. The members are also signatories to the Commonwealth accounting arrangements to facilitate financial collaboration and extension of non-financial assistance by way of training schemes and seminars for the benefit of the developing partners.

Twenty-six Commonwealth countries are members of the CTO and CTC. The council meets once in a year to review developments and discuss the measures necessary for the continuous improvement of the Commonwealth telecommunications network.

The Commonwealth telecommunications financial arrangements (1973) was terminated in March this year and replaced by a new Commonwealth accounting arrangements which continues to provide financial assistance from the developed to the developing countries.

In the new accounting arrangements more importance is being given to non-financial collaborative arrangements by way of seminars, trainings etc. For the benefit of the developing countries. India is a member of the board of management which is responsible for planning non-financial collaborative arrangements.

On this occasion, Mr Barber released a commemorative stamp brought out by the posts and telegraphs department on world communications year.

CSO: 5500/7178

APPLE PROJECT DIRECTOR TELLS PLANS, USES

New Delhi PATRIOT in English 21 Jul 83 p 5

[Text]

BANGALORE, July 20 (PTI) — A course on satellite communication through India's first experimental geo-stationary communication satellite, APPLE, for the Indian Institute of Technology is expected to be held early next month, project director Dr R M Vasagam said here today.

The satellite launched on 19 June 1981, had completed 750 days in orbit despite a crippled solar panel. 'It is functioning well and responding to commands', Dr Vasagam told PTI.

Besides continuing the normal experiments such as division multiple access (TDMA), and small communication terminals, the 670 kg satellite is being used for flood relief operations in Gujarat for the last 10 to 15 days, Dr Vasagam said. It provided a coordinated communication link between the capital of Gujarat and flood-affected areas.

Thousands of commands had been issued to the satellite, and executed since it was launched by an European Space Agency Ariane vehicle from Kourou in French Guyana, Dr Vasagam said.

Parked at 102 deg east the extended mission of the spacecraft originally scheduled for two years is expected to end in September.

As an orbital laboratory APPLE had provided a good opportunity to gain useful experience in technology on-orbit maintenance and operation, and applications of geostationary communication satellites. Besides being used for telecasting national events live, the APPLE was also used successfully for telecasting a short course on robotics to the professional community simultaneously at four locations — Ahmedabad, Bangalore, New Delhi and Madras recently.

CSO: 5500/7181

OFFICIALS SAY INSAT-1B TO IMPROVE COMMUNICATIONS

New Delhi PATRIOT in English 25 Jul 83 p 8

[Text] INSAT-1B, due for launching from Cape Canaveral in USA next month, will have significantly larger and newer uses on its ground segment besides the usual telecommunications, television and meteorological services, reports PTI.

According to official sources, the INSAT-1B, to be launched into the space by the American space shuttle, Challenger, between 20 and 23 August, is expected to be fully operational by the last week of September after the usual check-ups.

The satellite will have 12 transponders, each with 500 to 600 working channels for telecommunications, two transponders from direct telecasts through the 128 station enlarged TV network and one for the meteorological department.

This will "very considerably" relieve the present congestion in telecommunication traffic between the major cities. Through this, a very large number of channels can be switched over from one sector to another as required. Special beneficiaries will be the metropolitan cities of Calcutta, Bombay, Calcutta-Madras, and Calcutta-Delhi.

In addition, Calcutta will have the benefit of direct links through the satellite with all capitals in the north-eastern region, they being totally immune to weather conditions. Besides the satellite will vastly improve communications with the remote and inaccessible areas.

Already, the satellite communication arranged through two ground stations for the Oil and Natural Gas Commission at Bombay High oilfield has been acknowledged to be the most reliable for all modes of communication including telemetry.

The other new uses planned are mainly four: collection of data regarding climatic conditions from a variety of places through 400 automatic transmitters; a national telecommunication network connecting all major thermal power stations under the National Thermal Power Corporation; an exclusive "dedicated" facility to banks for instant communication of data such as foreign exchange rates; and extension of the satellite facility to national news agencies.

CSO: 5500/7183

INDIA, PAKISTAN DISCUSS TELECOMMUNICATIONS LINKS

Calcutta THE STATESMAN in English 27 Jul 83 p 9

[Text] New Delhi, 26 Jul--Pakistan has expressed its keenness to improve its communication system with India by increasing the number of telephone channels.

Pakistan's views in the matter, including a suggestion that there should be more frequent exchange of visits by technical teams to speedily sort out problems, were made known at the official talks here today on telecommunication services between the two countries.

The Pakistani delegation was led by the Director-General of Telephones and Telegraphs. Brigadier-General Mansoor-ul-Haw Malik, and the Indian team was led by the Secretary in the Ministry of Communications, Mr S.K. Ghose.

Review

The two sides reviewed the progress made on the Amritsar-Lahore coaxial (underground) cable link in terms of the decision taken by the two countries at an earlier meeting.

Work on the coaxial link on the Amritsar-Atari-Wagah-Lahore sections is expected to be completed by June 1984.

Besides the coaxial link, 12 channels on the open wire carrier system now exist between Amritsar and Lahore. Of those channels, one manual circuit operates between Delhi and Karachi, two manual circuits between Delhi and Lahore and one circuit between Delhi and Islamabad. This means that at any given time only not more than one person can talk from Delhi to Karachi in this system.

In addition to the open wire system, satellite circuits operated through overseas communication service are also available. In the satellite medium, three manual circuits between Bombay and Karachi and one manual circuit between Delhi and Karachi are working.

Dues

Apart from discussing ways to improve the telecommunication channels, the two sides also discussed the question of settlement of outstanding dues. India

has claimed from Pakistan Rs 23.30 lakhs toward telegraph traffic and Rs 37.93 lakhs for telephone traffic for the period between December 1947 and October, 1967. By mutual agreement, no accounting was done from November 1967 to October 14, 1974 and each country was supposed to retain the charges collected by it.

Telegraph accounts from October 14 to March 1967 have been settled but further accounts up to March 1982 have not been settled because of Pakistan's non-acceptance of India's claim. Similarly, telephone accounts for certain periods between 1974 and 1980 remain unsettled. Telex accounting is also not fully settled. It has been decided to hold coordination meeting between the two countries to settle the pending accounts.

CSO: 5500/7184

QUESTIONS ON PROPOSED MEDIA CONFERENCE NOTED

Calcutta THE STATESMAN in English 2 Aug 83 p 9

[Text] New Delhi, 31 Jul--The proposed international media conference of the non-aligned, which was to have been held here in September but postponed till later this year, has raised some questions as regards its intent and the inspiration behind it.

The purpose of the conference is stated to be to strengthen and help carry out the concept of the new world information and communication order pressed forward by the non-aligned movement. It is also stated that the conference will explore the possibilities of cooperation within the non-aligned movement for collective self-reliance in communication and help correct the imbalances that "constrict a free and balanced flow of world information".

The composition of the preparatory committee for the conference, however, has made some wonder how far these objectives will be achieved. For the more prominent members of that committee are identified with a particular point of view that is by no means non-aligned.

The committee includes, doubtless, a galaxy of people from the print media in this country. But, to go by what a few of them say, they seem to have merely lent their names out of courtesy, and are unlikely to be active.

That has created the apprehension whether the rest will not tilt the conference in whatever direction they desire.

There is also speculation as to who precisely will be funding the conference which is an ambitious one and is to be attended by media representatives from all 101 countries in the non-aligned movement. Will the Indian Government be picking the tab for the conference? There are reports that it might, but indirectly. Or, are some other agencies also funding the proposed conference?

The conference looks at first sight, like an offshoot of the seventh non-aligned summit. It is not. The summit had recommended only the convening of a general conference of Ministers of Information within this year, so as to offer the strongest and widest support to the non-aligned movement's efforts through the news agencies pool and the like, towards what was described as "decolonizing information".

Some here wonder whether the proposed media conference will not have an exactly opposite effect, restoring to whatever degree the "Havana tilt" which the New Delhi summit was widely acclaimed to have corrected with considerable finesse.

Incidentally, a similar media conference of the non-aligned held in February in a West Asian capital had, according to a leading Indian participant, discussed mainly international political issues such as Israel, the Indian Ocean and Diego Garcia, to produce a long political communique.

That communique was seven pages long, while the report of its professional committee on journalists' problems covered only a page and a half.

CSO: 5500/7185

GANDHI DEFENDS EXPANSION OF TELEVISION NETWORK

Calcutta THE STATESMAN in English 2 Aug 83 p 12

[Text]

ALLAHABAD, Aug. 1.—Mrs Gandhi today defended the expansion of the television networks in the country and said that television could not be considered a luxury in the present age of advanced technology, reports PTI.

Speaking at a ceremony to lay the foundation of a high-powered TV relay centre here, Mrs Gandhi said that the Government intended to expand the TV network to cover the entire country.

Describing the television as essential for achieving national integration for eradicating poverty and ignorance and for serving the interest of illiterate farmers, Mrs Gandhi said that it was crucial for the country to keep pace with the developing world.

Earlier on her arrival at Bamrauli airport, Mrs Gandhi was accorded a warm welcome. She was accompanied by the Union Minister for Information and Broadcasting, Mr H. K. L. Bhagat, the Union Commerce Minister, Mr Vishwanath Pratap Singh and the State Chief Minister, Mr Sripati Mishra.

Recalling that television had been introduced after she had became the Minister for Information and Broadcasting in the Shastri Cabinet, Mrs Gandhi said she had to overcome numerous hurdles, before the plan to introduce television could be introduced.

Mrs Gandhi said, the Government was following a policy of introducing colour television while retaining the black and white system.

Mrs Gandhi said the promotion of television would help make the masses aware of the country's rich cultural, religious, and socio-political heritage and of the saga of its freedom struggle.

This medium, she said, would inevitably make the masses more conscious as well as help modernize the thinking and outlook of the younger generation.

It would also impart education to the illiterate farmers, specially for increasing agricultural output and improving crop management, she said.

Stressing the need for useful television programmes, she said that while providing entertainment to viewers, they should also help the people in acquiring knowledge and developing interest in technology and the sciences to ensure that India does not remain backward.

Mrs Gandhi said there was a long list of places selected for setting up TV centres, which she had been given by the Information and Broadcasting Minister, Mr Bhagat. She hoped these would soon start functioning, as planned.

Mrs Gandhi wanted the target coverage of 70% of the country's population by November, 1984, from the present coverage of 25% to be increased to cover the whole population soon.

The Prime Minister, while referring to the choice of Allahabad for the proposed TV station, remarked that the Government was showing no discrimination in this respect to Uttar Pradesh.

CSO: 5500/7185

BRIEFS

GANGTOK TRANSMITTER--NEW DELHI, July 4--The capacity of the newly-set up All India Radio station in the Sikkimese capital of Gangtok has been doubled from the existing 10 to 20 kW. The State Governor, Mr. Homi J. H. Talyarkhan after a meeting with the information and Broadcasting Minister, Mr. H. K. L. Bhagat told newsmen on Friday that the Ministry had already acquired land for the construction of studios and broadcasting rooms in Gangtok. Mr. Talyarkhan also met the President, Mr. Zail Singh and the Prime Minister, Mrs. Indira Gandhi and apprised them of the developmental activities taken up--PTI. [Madras THE HINDU in English 5 Jul 83 p 6]

LONG DISTANCE TELEPHONES--NEW DELHI, July 5--Mr. V. N. Gadgil, Union Minister of State for Communications, told members of the parliamentary consultative committee for his Ministry here today that the Posts and Telegraphs department would open long distance public telephones in about 300 places by importing multi-access rural radio equipment. The areas to be covered by such equipment include Nizamabad in Andhra Pradesh, Nanguneri in Tamil Nadu and Agartala in Tripura. Action has been initiated for indigenous production of the equipment. Leters of intent have been placed on Indian Telephone Industries, Bangalore, the Gujarat Communications and Electronics, Baroda and Uptron, Lucknow. The Minister said no case of malpractice in telephone exchanges by providing unauthorised hotlines to traders had come to the P and T Directorate's notice. Strict watch was being kept through vigilance squads in Bombay, Calcutta, Delhi and Madras. Vigil was maintained at other places also and surprise checks were conducted at sensitive points. P and T separation: On bifurcation of the P and T department, Mr. Gadgil said that since the two services were historically functioning under a common department, separation would have far-reaching implications of their functioning. The Government had to consider carefully the pros and cons of the proposal. A decision would be taken without much delay, he said. New stamps: The P and T had finalised a plan to issue a series of stamps to depict the landmarks in India's struggle for freedom. The stamps would be on the Quit India Movement, Mahadev Desai, Mira Behn, Hemu Kalani and Vasudeo Balwant Phadke. [Madras THE HINDU in English 6 Jul 83 p 9]

RAJASTHAN TELEPHONE EXCHANGES--JAIPUR, July 10 (UNI)--Rajasthan will be provided 50 new telephone exchanges during the current financial year, according to Mr D K Sanghal, general manager tele-communication. In a meeting with members of Parliament from the State here on Friday, Mr Sanghal said a target of

opening 100 call offices in the rural sector had also been fixed. Besides, the telephone department in the State had decided to increase the present capacity of the existing lines by 10,000 new connections. He said, Churu, Chittorgarh, Barmer and Sikar would soon be provided with automatic exchanges and Beawar town in Ajmer district would be connected to Jaipur with direct dialing system. [New Delhi PATRIOT in English 11 Jul 83 p 4]

CSO: 5500/7165

NEWLY DESIGNED PHONE UNITS TO BE MANUFACTURED

Karachi DAWN in English 2 Aug 83 p 7

[Text]

NATHIAGALI, Aug 1: The Telephone Industries of Pakistan, Haripur, will manufacture 80,000 instruments of newly designed telephone sets during the current fiscal year, the NWFP Governor, Lt-Gen. Fazle haq, was informed here.

Mr Nazar Mohammad, General Manager of Telephone Industries of Pakistan, briefed the Governor about the factory and presented two newly designed telephone sets to the Governor at the Governor's House, in Nathiagali yesterday.

The Governor was told that of the 80,000 instruments, 30,000 will have electronic push-button dial-switch and the rest 50,000 will be fitted with new rotary dial switch. The new sets have been designed with the collaboration of m/s Siemens, a renowned firm of West Germany while the electronic push-button dial has been entirely designed by the Pakistani engineers. The factory has so far manufactured 16,000 new sets of telephones which have been distributed all over the country and are in green colour.

The factory has also started manufacturing this new set designed in green colour. The first set of new design was presented to the Governor yesterday.

The Governor was told that the instrument with push-button dial-switch has facility of restoring the memory of the last number dialled and is the latest design being used throughout the developed countries. This instrument is more reliable, durable, lignt in weight, and easy to maintain because of its components being ot plug-intype nature.

the Governor was informed that the production of these instruments will be increased to 1.20 lakh during the next year and 1.80 lakh during the subsequent year.

The Telephone Factory has also introduced the production of latest bilingual electronic teleprinters which will transmit messages both in English and Urdu. Fifteen hundred teleprinters will be produced during the current fiscal year.

The Governor was also told that the Pakistani engineers have also designed electronic exchanges and a bigger capacity exchange of 250 lines will be completed by the end of this year. In addition to this, the factory will produce and install telephone exchanges which will provide 50,000 additional telephone connections in different cities of the country by June, 1984.—APP.

CSO: 5500/4749

TIP TO PRODUCE BILINGUAL TELEPRINTERS

Karachi DAWN in English 3 Aug 83 p 4

[Text]

PESHAWAR, Aug 2: The Telephone Industries of Pakistan, Haripur, shall produce 1500 bilingual electronic teleprinters during the current financial year. These teleprinters can be used for transmitting messages both in English and Urdu without the aid of any extra apparatus.

This was stated by the General Manager of TIP while presenting two newly designed electronic push-button dial switch and rotary dial switch telephone sets to the NWFP Governor, Lt-Gen Fazle Haq at Nathiagali on Sunday.

TIP would produce 80,000 such sets during next year.

Designed in collaboration with a West German firm, according to the General Manager, the factory has so far manufactured 16,000 telephone sets for distribution in Pakistan.

The newly-designed push button dial switch telephone also has the facility of storing memory of the last number dialed and is commonly used in developed countries. It is said to be more reliable, durable and light in weight as well as easy to maintain. Production of these sets shall be increased to 1.20 lakh during the next financial year and to 1.80 lakhs when the factory starts operating to its full capacity.

TIP's Pakistani engineers have designed electronic exchanges of ten, fifty and thirtynine lines. The bigger capacity exchanges of 250 lines will be completed this year.

"In addition to this, the factory will produce and instal telephone exchanges to provide 50,000 additional telephone connections in the country by June next year," the General Manager said.

****

The Quaid-i-Azam Memorial Committee, NWFP, headed by Governor's Adviser Zafar Ali Khan, on Sunday approved the text of a plaque to be fixed at the Shahibagh Memorial to be inaugurated by Governor Lt Gen Fazle Haq on the Independence Day.

The memorial has been built at the site where Quaid-i-Azam had addressed a public meeting on October 19, 1936.

Another memorial is being raised at Jinnah Park Peshawar.

CSO: 5500/4749

GOVERNMENT PLANS TO SET UP MORE TV, RADIO TRANSMITTERS

GF221420 Karachi DAWN in English 19 Aug 83 p 14

[Text] Quetta, 16 Aug (PPI)--The federal government has launched a programme for expansion of radio and television signals in far-flung areas of Baluchistan, northern areas, NWFP [Northwest Frontier Province], Sind and Punjab at a cost of Rs. 776 million.

On completion of this programme, radio and TV signals will reach an additional population of 18 million by 1988.

Authoritative quarters told PPI here on Tuesday that Rs. 282 million development programme, under execution, envisaged installation of a 300 kilowatt transmitter at Khuzdar, a 250 kilowatt transmitter at Islamabad for external broadcasting service in Middle East countries, a 150 kilowatt transmitter at Muzaffarabad in Azad Kashmir, 100 Kilowatt transmitter each at Peshawar and Karachi and 14 Kilowatt transmitter each at Skardu, Sibi, Loralai and Zhob in Baluchistan.

Under television extension programme a TV complex at Islamabad and a permanent colour TV station at Quetta are in advanced stages of completion.

Seven boosters in Balichistan, NWFP, Sind and Punjab and two TV links in Baluchistan, have also been planned to televise rural people's participation in socioeconomic development and to popularise process of Islamisation of society.

The TV extension programme would cost Rs. 494 million. The federal government is contributing about Rs. 280 million to implement TV projects in Baluchistan and other developing areas of the country. The balance would be met by Pakistan Television Corporation from its own resources.

CSO: 5500/4750

BRIEFS

PAKISTAN-INDIA DIRECT DIALLING--ISLAMABAD, Aug 1--Pakistan has proposed to India to introduce direct-dialling telephone service between the two countries. This was stated by the Director-General, Pakistan Telegraph and Telephone Department, Brig Mansurul Haq Malik on his return from New Delhi, here on Monday. He said that the Indian authorities have agreed to the Pakistan's proposal and were examining it. Brig Mansur also discussed with his Indian counterpart the possibility to increase the existing capacity of satellite links between Karachi-Bombay from three to 12 channels and opening of new traffic routes between India and Pakistan, keeping in view the volume of traffic between different cities of the two countries. Automatic telex service is already existing between the two countries. [Karachi DAWN in English 2 Aug 83 p 4]

CSO: 5500/4749

BRIEFS

EXPANDED TELECOMMUNICATIONS LINKS--The UAE expects to improve its telecommunications facilities next year with the extension of its unified cable system to the borders of Saudi Arabia and the completion of a marine cable system linking the country with Qatar and Bahrain, according to an official of the Emirates Telecommunications Corporation (Emirtel). The Emirates news agency quoted Emirtel's Director General Ali Salim al-Oweis as saying that the company had expanded its services considerably in 1982 and now had a network of 163,098 lines, an increase of 20,000 over the 1981 figure. Mr Oweis noted that Emirtel had boosted its revenue to $300 million in 1982, up 19 per cent on 1981, adding that the increase had been achieved in spite of a 25 per cent reduction in charges and the introduction of a free call system to limited areas. [Text] [Paris AN-NAHAR ARAB REPORT & MEMO in English No 29, 18 Jul 83 pp 6-7]

CSO: 5500/4537

POSSIBILITY OF FOURTH TV CHANNEL DISCUSSED

Johannesburg RAND DAILY MAIL in English 12 Jul 83 p 11

[Article by Greg Garden]

[Text]

LAST WEEK's announcement by the SABC that it would be increasing its television transmission time by 10 hours each week from the start of 1984 would seem to put an end to speculation of past weeks that the introduction of a fourth SABC TV channel had reached advanced planning stages.

The SABC still has "no comment whatsoever" to make on this possibility, and the slightly earlier starting time to daily broadcasts does little to alter the major points which have been argued regarding a fourth channel. These are:

● The competition factor — direct or indirect — which will be posed by Bophuthatswana television.

This service will pose a massive threat to the SABC's TV 2 service particularly.

● Numerous senior personnel changes at the SABC and a streamlining of the production management.

● Large organisational changes in the news and actuality divisions of Channel One, and in their aims and objectives.

● Increasing reference by continuity announcers and the SABC public relations division to "Channel One".

This could point to a preparation for distinction between channels.

● The current education crisis ... Transvaal Nationalist MEC Fanie Schoeman has requested that broadcast television as an educational medium should be thoroughly researched; aspects of the De Lange Commission call for similar action; and there are still many recommendations of the Meyer Commission into television which were accepted by the Government but which have yet to be implemented.

● Strong pressures on the Government from the major newspaper Press groups, who see revenue from advertising on a television channel in which they have shares as the only solution to their threatened financial feasibility.

Newspapers derive the bulk of their revenue from advertising, and television has obviously made serious inroads into this income.

The final decision in this regard lies with the Cabinet and, as usual, is blanketed in secrecy.

Early in May it was reported that the possibility of an "independent" fourth channel was high, and that it was on the cards that the four major newspaper groups — South African Associated Newspapers, Argus, Nationale Pers and Perskor — would each hold 15% of the shares and the Government and/or the SABC 40%.

The question of control of the channel is, of course, crucial; and in spite of the unlikelihood of either Nationle Pers or Perskor voting against the Government, informed sources close to the Cabinet told me this week that, should the plan go ahead — and this is by no means certain — a more likely arrangement would be 60% Government and 10% for each of the Press groups.

● The future possibility of competition from DBS ... Direct Broadcasting by Satellite. It has been well publicised that South Africa is likely to have its own satellite in static orbit in the near future.

Short of proscriptive legislation, it will be possible for the private viewer to invest in the technology required to receive signals directly from this source.

The Steyn Commission into the Media drew attention to this when it recommended that the question of an independent service alongside the SABC (a fourth channel) should be considered in the light of possible "media actions from the outside," which could be harmful to the country's (Government's) interests.

Clearly, the SABC and the Government will wish to counter this threat.

● The fact that a fourth channel has been mooted for some time, and that there are mounting pressures for its introduction.

● The SABC is known to be concerned about the challenge of video rental outlets.

Although the corporation does not have to fight for viewer ratings, its advertising rates are determined by the size of its audience; and if sufficient numbers of viewers boycott television in favour of videos, this could result in a drop in advertising revenue for the corporation.

Quite obviously, the present broadcasting setup suits the Government admirably.

The total grip held by the Government of the present service is quite explicit, but the more viewing is available the more difficult it may be to retain this grip.

In spite of this, however, there seems to be a rising tide of awareness that there is a strong NEED for a further channel.

But the role of the Government and the SABC in such a channel is likely to be the subject of much controversy.

● The monopoly held at present by the SABC is inherently bad and against the public interest.

The newspaper groups are applying strong — some say inevitable — pressure for representation of their interests.

Home video rentals have become the alternative to

SABC broadcasts, and this constitutes a loss of viewers.

THe SABC has in the past used Lord Hailsham's BBC argument "that is is not a monopoly in the accepted sense of the word, since it sold nothing".

The "sale" of home videos has now put a different complexion on that argument, and it would now be to the SABC's advantage to break the monopoly and allow viewers a choice of channel.

● Although the SABC is opposed to the idea, there are still strong pressures to introduce separate language channels.

This is part of the second phase of television recommended by the Meyer Commission (the first being TV 1 and the introduction of channels for black viewers).

Although this move could constitute a major blow to the video industry and bolster the SABC's position, it is unlikely that this recommendation will ever be implemented.

● The crisis in education has made formal educational television a national priority.

(The factors influencing this argument, and the unimplemented Meyer recommendations, will be analysed in the second part of this article tomorrow).

● In spite of the SABC announcement that Bophuthatswana television will be broadcast to certain areas only — and will not reach the white, coloured and Indian viewers of the PWV area — it is clear that this situation can only exist for a limited time.

I personally expect current negotiations between the two governments to end with greater coverage for the new service; should this not occur, it is inevitable that advertisers will bargain for greater audiences.

And with the proposed limited broadcasting areas of BopTV, doubts must be cast on its financial feasibility.

Statistics compiled by Market Research Africa for the January to March period for this year show that nearly 40% of black television viewers prefer to watch TV 1 rather than Channels Two and Three.

The equal division between Setswana, English and Afrikaans on BopTV will constitute a further challenge to the SABC.

It is no secret that the SABC is embarking on a five-year, R50-million capital development programme.

This, coupled with recent administrative changes at the SABC and the creation of two separate divisions within each of the English and Afrikaans services, has further fueled the fires of rumour, which contend that parts of existing departments are being prepared for a split to a fourth channel.

Where previously English and Afrikaans television each had a head, they now each have two: Head, Arts and Variety; and Head, Actuality.

The drama, variety and youth programmes fall under the former, whilst magazines, documentaries, sport and religion are the charge of the latter.

The news services department remains independent of this structure.

● It is noteworthy that, whilst previous annual general reports from the corporation have included a breakdown of the staff structure, this is not included in the latest report.

But whatever the present attitude of the Government and the SABC to a fourth channel may be, it is in the area of education and educational television that the strongest needs arise.

Pressures to implement the De Lange and Meyer Commission recommendations in this regard are known to be strong.

The issues at stake here — and the likely structure of a fourth channel as being mooted presently in influential circles — will be examined tomorrow.

CSO: 5500/191

'FOURTH GENERATION LANGUAGE' IN LOCAL COMPUTER INDUSTRY

Johannesburg SUNDAY TIMES-BUSINESS TIMES in English 31 Jul 83 p 7

[Text]

"FOURTH generation language" are the latest buzz words to be bandied about in the local computer industry.

Although there is some confusion about their true definition, they sound like good news for the end user in the long run.

However, IBM warns that the random introduction of fourth generation language systems by companies without a well-structured data base will lead to disaster.

Professor Neil Duffy of Wits University's Graduate School of Business Administration says the emergence of fourth generation languages is a response to such backlogs as increasing numbers of unmaintainable computer systems, a shortage of skilled data processors and the rising cost of their services, increasing expenditure on information management and a growing variety of new software.

"These trends lead to increased dissatisfaction among end users and increased pressure on data processing managers," says Professor Duffy.

He says fourth generation languages incorporate query, data base, report generation, graphics, application generation and high level programming capabilities.

They are designed to provide minimal training for end users, "user friendliness", and non-procedural programming capabilities.

In other words, users with only a few hours training in computers will be able to use these languages to get direct access to an organisation's information resources instead of taking the lengthy path through the over-burdened data processing department.

Professor Duffy says US experience shows huge increases in information system development productivity.

In the paper entitled "Fourth Generation Languages: The Quiet Revolution in Information Systems", researchers from the Graduate School of Business Administration at Wits University note that no single language yet incorporates all the capabilities mentioned in the definition.

■■■

The advantages of fourth generation languages for end users are listed by these researchers as: management information is more readily available; information systems may be developed quickly and changed just as quickly — hours or days rather than months or years; end users may develop their information systems themselves without the intervention of expensive data processing specialists who are often not readily available.

In a study on fourth generation languages in South Africa, the researchers found that the number of these languages is increasing almost weekly and they are running on computers ranging from micro to mainframe, with the latter predominating.

Computer company Sperry has supplied its Mapper applications development system — a fourth generation language — to some 70 percent of its clients but both Mapper product manager Peter Charter and commercial product manager Bill Moore believe there is a resistance to this concept among data processing staff who believe fourth generation languages will do them out of a job.

They say this is untrue, and what will in fact happen is a

change in the role of the programmer, who will be more involved in the security of the data base and the maintenance of old programmes.

IBM's manager of application growth and software marketing, Mike van Rijswijck discounts the term "fourth generation language" as a buzz word and says that we are looking at a productivity aid.

"Data processing is booming and we need productivity aids to meet the requirements of business. Business pressure leads to businessmen relying more and more on computer facilities to get the answers they need," he says.

He adds that the so-called "fourth generation languages" are providing increased productivity for minimum investment in training and people resources.

However, he warns against the dangers of data processing submitting to the pressure from users and giving these users access to information that is not properly structured.

He says it is essential to have a structure comprising a development centre of data processing people organising a data base to which end users will have access from an information centre.

CSO: 5500/197

SYMPOSIUM TO FOCUS ON DEVELOPMENTS IN CAD SCHEDULED

Johannesburg SUNDAY TIMES-BUSINESS TIMES in English 31 Jul 83 p 9

[Text]

WITH over 200 computer-aided design (CAD) systems sold in South Africa already, this discipline is well entrenched and attracting a lot of interest.

The third South African Computer Aided Design Symposium, Sacad '83, to be held on September 1 and 2 at the Rosebank Hotel in Johannesburg, will give users an opportunity to share experiences and hear about new developments and to provide background information and contacts for those uninitiated to the world of CAD.

The symposium is aimed at users, potential users and suppliers of computer-aided draughting, design and manufacturing systems.

For those with no knowledge of the subject, introductory sessions are offered. For those with more experience, advanced papers will be presented in a parallel session.

A full day of working sessions has been arranged for the day prior to the symposium at the same location.

This is intended for experienced CAD users and managers and is aimed at creating a forum for an exchange of views.

Topics to be discussed at this session include: systems management, the real benefits achieved; personnel selection and training; the need for a user group for all users, independent of product; and the need for standards.

There will also be an exhibition of small CAD systems during the symposium.

The symposium will include an introduction to CAD as well as presentations on the use of CAD in civil and structural engineering, mechanical engineering, architecture and electronics. There will also be a guide to selecting a CAD system.

Although the speakers at last year's symposium were drawn mainly from the supplying side of the industry — indicative of the relative lack of experienced users in South Africa — there are very few suppliers among this year's 25 speakers.

Users, as well as representatives from universities, the CSIR and the SABS, feature on the speaker list. Some 14 of the presenters come from organisations with CAD facilities.

These range from 2-D draughting systems in architectural and consulting engineering practices to full computer-aided design systems at such places as Datsun Nissan and Atlas Aircraft.

The symposium will be led by Dick Clark of General Computer Consulting.

CSO: 5500/197

STANDBY POWER SYSTEMS SOUGHT

Johannesburg THE STAR in English 3 Aug 83 p 13M

[Article by Duncan Collings]

[Text] Possible power cuts stemming from the drought have forced industry and commerce to look at standby power systems to protect vital computer equipment.

Amid warnings of the catastrophic results which could result from unexpected power cuts, there has been a surge of inquiries about back-up power systems, say experts in the field.

"Standby systems designed for mainframe, mini and micro computer operations are now accepted as valuable insurance against disastrous and costly losses through power failures," says Mr Wolfgang Junker, managing director of Omni[illegible]stitute.

Standby power systems are being used increasingly in industry where they keep essential computer-based production processes working despite partial or total electricity failures.

The risk of power being affected because of the drought adds a potent new reason for installing an emergency power unit, Mr Junker says.

"A power failure can be disastrous. It can wipe out a whole computer programme, causing waste of expensive manpower and money, not to mention the added burden of re-programming.

Industry — quite apart from computer data banks — is particularly vulnerable to power failure.

"Even a partial failure lasting only milliseconds can wreck an electronically-controlled production line."

The loss of information resulting from a power cut is another worry and while users of large computer systems usually already have an uninterrupted power supply (UPS) system installed, many mini and micro controlled computer operations do not.

They are the really vulnerable ones.

At the heart of an effective back-up power supply system is the inverter, a compact electronic box which converts DC power from a bank of batteries to 220 volts alternating current.

Working with a UPS system, the inverter will guarantee uninterruptable power during a mains failure or breakdown, whatever the cause.

In the event of a total failure or brownout (voltage drop) — either could wreck a computer programme, sometimes even the hardware itself — a UPS system will allow a computer operator to continue operating and store or retrieve information until mains power is restored, or shut down the system to avoid damaging the hardware or software.

CSO: 5500/197

BRIEFS

MEDEX SATELLITE LINK--South Africa has become part of a world-wide network linked by satellite to provide instant communication on medical assistance for travellers, according to a statement released in Johannesburg yesterday by the president of a Travel assistance service, Mr Jerry Edwards. The system, Medcom, was introduced by the Medex organisation and the link-up was recently commissioned by Mr Edwards. He said Medex specialised in the administration of travel insurance for holiday travellers and business executives such as locating medical care, verifying insurance cover, arranging emergency medical transport, helping with language problems, and contacting consulates, family or business associates. The network is able to obtain immediate details on travellers covered by the scheme, ranging from passport information to medical background, according to Mr Edwards.--Sapa. [Text] [Johannesburg THE CITIZEN in English 20 Jul 83 p 16]

BOPTV'S INDEPENDENCE--Bophuthatswana Television will have as much independence regarding the content of its television programmes as the homeland state does in economic affairs. Deputy Information Minister Barend du Plessis has said that South Africa will prescribe no content restrictions to BopTV. The only restrictions will lie in an, as yet, unsigned technical agreement between the two governments. In terms of this agreement, South Africa will transmit signals received from the transmitter and television studios to be built at GaRankuwa in Bophuthatswana. These signals will be legally regarded as South African, because Bophuthatswana cannot apply to the International Telecommunications Union for a frequency, as its "independence" is not internationally recognised. BopTV will, to all intents and purposes, therefore remain an aspect of South African broadcasting. Bophuthatswana Minister of Works Amos Kgomongwe, entrusted with the task of getting the television service off the ground, has stated that "television broadcasts will be bound by our own set of standards of morality and ethics and our own political conscience". However, in recruiting trained personnel to be entrusted with these tasks, Mr Kgomongwe doesn't have many options. Several well-known figures in local--that is, SABC broadcasting--are known to have responded to Bophuthatswana's recruitment drive in the local Press a few months back, and it is thus more than likely that those in power at BopTV will be subscribers to the dominant ideology which gave Bophuthatswana its "independence" and which is guided by the SABC view of "current affairs". Under such circumstances

there is patently no need for Minister du Plessis to try and set content restrictions for BopTV. What will be of local interest will be the daily eight hours of "educational viewing," which Mr Kgomongwe has stated the new service will broadcast. It is widely believed here that Israeli Educational Television will play a dominant role in this regard. Education Minister L G Holele and Rowan Cronje, Minister of Manpower, recently travelled to Israel to meet senior Israeli education and television authorities. Advertisements were also placed in the Israeli Press to recruit staff for these programmes. It is in this area that BopTV can hasten the introduction of a fourth "South African" channel with a strong educational component. The few extra hours per week allocated by the corporation for TV1 are meaningless in this regard. [Text] [Johannesburg RAND DAILY MAIL in English 12 Jul 83 p 11]

'INTELLIGENT' COMMUNICATION LINK DEVELOPED--A Durban-based computer consultant has developed an "intelligent" communication link between two different brands of micro-computers. This computer technology break-through of Computer Concepts can save commerce and industry many thousands of rands. It has made it possible for many man-months of development work to be successfully transferred between Apple and IBM personal computers for two of its major clients. The link overcomes the problem facing many large companies which already own Apple computers and now wish to acquire the new IBM PC. "These are very different computers," says Computer Concept's Mr Kevin Pearson, who developed the link. "Previously, companies with both Apple and IBM micro-computers could not transport information and programmes freely between the two computers. Because time is so important we started to look at the problem of over-coming this incompatibility between these two brands of computers for our clients. With this system, programmes and information can be transported between the computers and simultaneously be converted into an understandable form on the target machine," he says. The service for Computer Concept's clients could save many months of reprogramming time. [Text] [Johannesburg THE STAR in English 3 Aug 83 p 13M]

CSO: 5500/197

BRIEFS

DAR ES SALAAM-MWANZA MICROWAVE SYSTEM--THERE will be 360 channels of telephone lines in use at any one time between Dar es Salaam and Mwanza when the Tropospheric Scattering System is completed at the end of this year, it was learnt yesterday. The Minister for Communications and Transport, Ndugu John Malecela, said in Dar es Salaam yesterday that the system, using microwave links, will facilitate easy telephone communication between the two towns. was part of the telecommunications infrastructure which will see microwave links to Bukoba, Biharamulo, Kigoma and neighbouring countries of Rwanda and Burundi. He said plans were also underway to set up a microwave system at Tukuyu. This will connect and provide telecommunications links with Malawi. A Subscriber Trunk Dialing (STD) system had been put at Mufindi where there is the paper and pulp plant, he said. The Minister said the new Dar es Salaam-Mwanza microwave system had a potential to accommodate 960 channels. [John Waluye] [Excerpts] [Dar es Salaam DAILY NEWS in English 26 Jul 83 p 1]

CSO: 5500/196

SWEDISH FIRM BUYS SATELLITE FROM FRANCE FOR TELE-X

Stockholm DAGENS NYHETER Swedish 12 Aug 83 p 12

> [Text] The Swedish space corporation has signed a contract with the French company Aerospatiale and the corporate group Eurosatellite for the delivery of the Tele-X-satellite and its appurtenant equipment.

The contract is for about 650 kronor.

The Tele-X satellite is a computer and TV satellite with two TV channels which will cover the Nordic Countries. Launching is planned for the end of 1986. The project is a Swedish-Norwegian cooperative endeavor. Finland will eventually join in.

The total cost of the Tele-X project will be about 1,250 million kroner. The launching is included in this sum. It is estimated that half of the industrial contracts will go to Swedish or Nordic firms.

Ericsson and Saab-Scania will build, among other things, important parts of the communications, antenna and command systems. The contract for the delivery of a ground station for computers and video will be signed at the end of the year by the space corporation and Ericsson in Sweden and the Norwegian firm Elektrisk Bureau. Negotiations regarding a control station in Kiruna are not complete.

6893
CSO: 5500/2764

THOMSON-TITN TO DEVELOP INTEGRATED OFFICE AUTOMATION NETWORK

Paris ELECTRONIQUE ACTUALITES in French 10 Jun 83 pp 1, 9

[Text] The General Directorate of Telecommunications has awarded Thomson-TITN [New Techniques Data Processing] the contract to build and install the DOT [Territorial Operational Defense] local telematics network at Nanterre. This is to be a full-scale introductory operational test involving a number of office automation services: Document message switching; electronic files management; filing and storage of records; communication with outside data processing and telematics services. The network is scheduled to be in service by 1985.

Initially, all 300 of the terminals distributed among the Nanterre DOT, the 9 CPE's [Principal Operating Center(s)] and 8 ACTEL's [PTT Commercial Office(s)] that will be connected to the system will have access to the different services to be provided by the message exchange, file management and electronic records, and communications services facilities.

Subscriber terminal line concentrators will be installed at local and distant subscriber-connection stations:

--Local subscriber-connection stations, installed in the Nanterre central office, will be connected with the local network via the Ethernet bus;

--Distant subscriber-connection stations, distributed among the CPE's and ACTEL's will access the local network by way of the Transpac public network and the communications service facility.

The subscriber terminals are Minitel, either local or distant, data processing (keyboard and display) type units connected via the switched public telephone network, teletex terminals, word processing and electronic display machines, and Group III telecopiers.

The approved equipment comprises Mitra 525 sets, manufactured by SEMS [European Mini-Computer and Systems Co.] for the serving centers, and custom-designed equipment for the subscriber connecting stations.

The communication facility architecture conforms to the ISO [International Standardization Organization] model and will use Architel protocols.

9339
CSO: 5500/2725

PTT OUTLINES MANAGEMENT GOALS FOR TELECOMMUNICATIONS

Paris TELECOMMUNICATIONS in French Apr 83 pp 17-18

[Excerpts from article by Jean-Yves Gouiffes and Marcel Roulet: "The Medium-Term Management Plan for Telecommunications"]

[Excerpts] The Strategy Adopted

After many calculations, simulations and discussions, a developmental strategy has been adopted that will mark out the main course of PTT's planning for the period 1983-1986. Going back to the basic approach outlined above, we will examine, first of all, the variables present at the outset; then, we will discuss the objectives.

Among the starting givens we find the financial variables, that is, rates, the financial package, and program authorizations. Rate increases will be decidedly below general price rises, and in the case of telephone service in particular, 3 percent less per year on average for the period 1982-1986 (basic assumption). As regards the financial package, the gross inflow from the capital market is to be 14.3 billion 1982 French francs per year on average; deducting retirements of loans, the net inflow (increased debt) will average 7.2 billion 1982 French francs a year. As for program authorizations, the 1982 level of appropriations (27 billion 1982 francs) is to be maintained, subject to the balancing of the financial equation.

Figure 5 lists the service development and service quality objectives for 1986 against a comparative listing of results obtained in 1982.

Particularly noteworthy are: The significant reduction in subscriber hook-up waiting times, the gradual generalization of time-division switching, the projected growth of videotex service, and the launching of a cable network installation program.

Figures 6 and 7 chart the principal characteristics of the telephone service development plan.

Productivity versus total wages must average 3.5 percent over the period, while total production should increase by 7 percent on average. A mechanism has been set up to correct productivity if production falls off significantly from this level.

Projected according to a classic curve, the number of civil service employees in 1986 should be less than 7.5 per 1,000 principal lines (Fig 8).

The return on capital must be at least 10 percent per annum, which is less than in past years, owing in part to the gradual shift in telephone service growth toward the less affluent social and occupational classes and in part to the launching of the cable network, the profitability of which is more of a long-term projection.

The financial situation, however, should remain sound, since the level of reinvestment will rise and the rate of indebtedness--the ratio of debt expressed in years to gross earnings--should improve (Figs 9 and 10).

The Management Plan that has now been approved responds to the problems under consideration:

--It assigns fixed values to all the variables in the financial equation, together;

--It sets forth clearly the relations between the PTT special budget and the general national budget;

--It delineates a multi-annual perspective that provides a basis for each annual budget;

--It lays out for the industrialists in the telecommunications sector the policy guidelines that are to be followed by their principal customer;

--It sets up clearly defined milestones for the development of PTT services.

It is therefore an innovative, action-oriented and far-reaching document, in that it lays down the "rules of the game" and the "opening deal" for the next 4 years. It is an important step toward endowing France, as stated in the communique of the Council of Ministers, with "a telecommunications service second to none from the standpoints of quality of service provided, the efficiency of its management and the growing use of state-of-the-art techniques."

[Tables and graphs follow]:

Fig 5 - Objectives of the Plan.

Item	1982 Results	1986 Objectives (or Projections*)
Development of Service:		
Telephone		
Percentage of applications for service on which installation was completed in less than 15 days	33 percent	80 percent
Number of principal telephone lines	19.5 million	24.0 million
Percentage of households being provided with telephone service	83 percent	94 percent
Unweighted density (lines per 100 inhabitants)	36	43
Percentage of lines on electronic time-division-switching exchanges	15 percent	50 percent
Videotex Service		
Minitel terminals in service	0	3.0 million
Cable Networks		
Minimum number of terminal connectors ordered (cumulative 1982-1986)	0	2.0 million
Quality of Service:		
Overall network efficiency	95 percent	97 percent
Net call-handling efficiency (allowing for busy signals and no-answers)	66 percent	70 percent
Average number of service outages per subscriber per year	0.31	0.27
Percentage of restorations of service effected not later than the day following report of outage	81 percent	85 percent

* [reference to this asterisk not published]

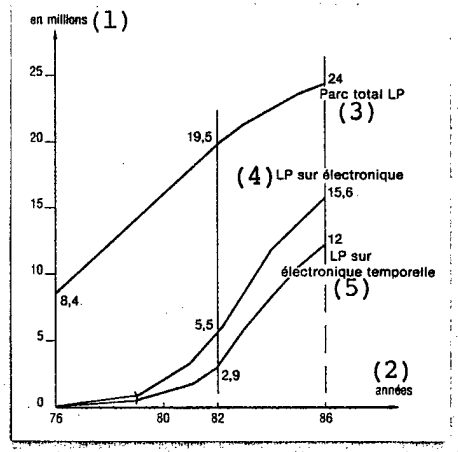

Fig 6 - Number of principal telephone lines.

Key:

1. In millions.
2. Year.
3. Total LP's [principal lines].
4. LP's on electronic exchanges.
5. LP's on time-division-switching electronic exchanges.

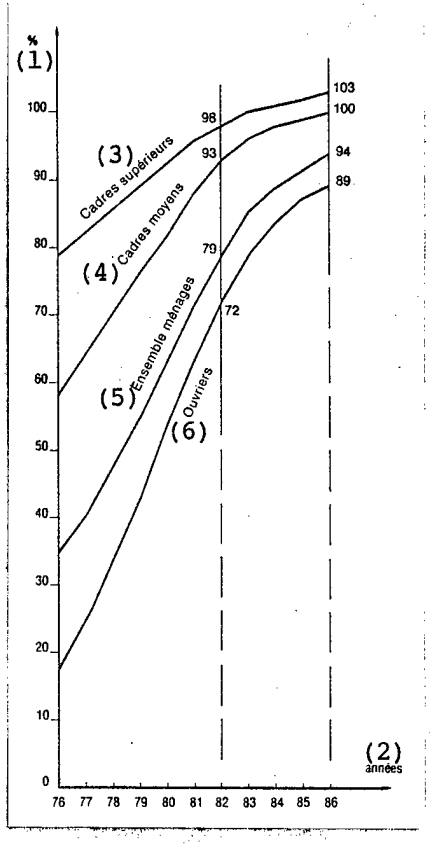

Fig 7 - Percentage of households, by socio-occupational categories, with telephone service.

Key:

1. Percent.
2. Year.
3. Higher management categories.
4. Middle management categories.
5. Total households.
6. Working [other than management] classes.

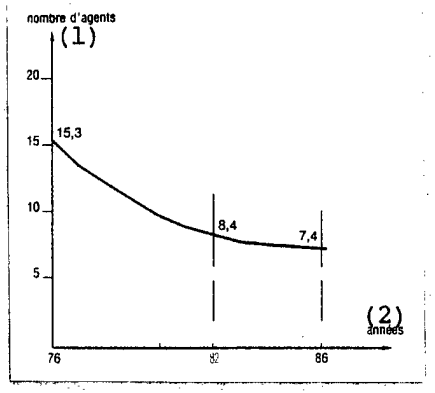

Fig 8 - Number of civil service employees per 1,000 principal lines.

Key:

1. Number of civil service employees.
2. Year.

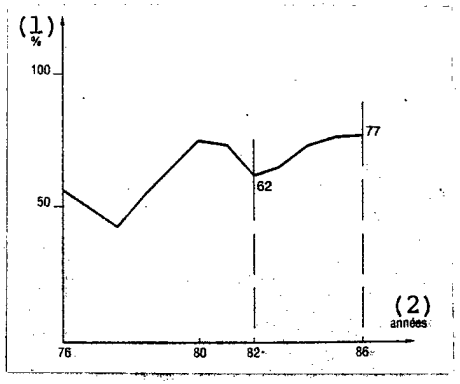

Fig 9 - Levels of reinvestment.

Key:

1. Percent.
2. Year.

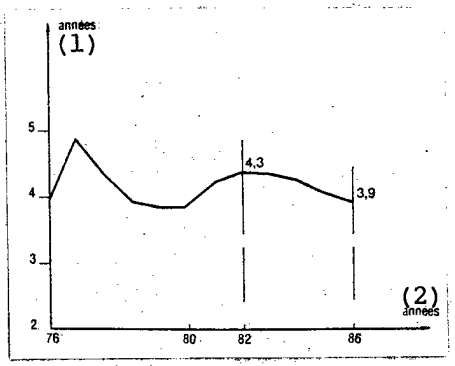

Fig 10 - Debt ratio.

Key:

1. Number of years.
2. Year.

BRIEFS

THOMSON-EFCIS RESULTS--In connection with the introduction of its EF 9367 controller, a new addition to its family of interactive graphic processors, Thomson-EFCIS [Thomson-Design and Fabrication of Special-Purpose Integrated Circuits] reports that its 1982 revenues totaled 570 million French francs, 60 percent of which came from bipolar circuit sales and 40 percent from MOS [metallic oxide semiconductor] circuit sales. Its sales projection for this year is 700 million French francs. The company is due to start mass producing Motorola 68000's in the very near future. [Text] [Paris ZERO UN INFORMATIQUE HEBDO in French 6 Jun 83 p 5] 9399

CSO: 5500/2725

BRIEFS

COMMUNICATIONS SATELLITE AGREEMENT--The agreement for Turkey's second communications satellite, which will be used for Turkey's communications with 12 European countries, was signed in Ankara today. The satellite ground station will be constructed by a Japanese firm. The station will be operational next year. [Summary] [TA241844 Ankara Domestic Service in Turkish 1500 GMT 24 Aug 83]

CSO: 5500/2767

- END -